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Decision **ALTERNATEDRAFT DECISION OF COMMMISSIONER BROWN**
(Mailed 3/14/06)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking concerning Broadband Over Power Line deployment by electric utilities in California.	Rulemaking 05-09-006 (Filed September 8, 2005)

OPINION IMPLEMENTING POLICY ON BROADBAND OVER POWER LINES

I. Summary

This decision implements the Commission's policy on deployment of Broadband Over Power Lines (BPL). In order to implement our BPL policy, we are: 1) conditionally exempting BPL-related transactions from the requirements of Public Utilities Code section 851 pursuant to our authority under Public Utilities Code section 853(b); 2) allowing electric utility affiliates to provide BPL services (subject to our existing Energy Affiliate Rules); 3) providing non-discriminatory access to utility poles and rights of way for BPL and other broadband providers via our existing pole attachment and right-of-way rules; 4) aligning financial risks and rewards and protecting ratepayers; 5) adopting a mechanism for sharing any additional revenues received from BPL providers; and 6) maintaining the safety and reliability of the electric distribution system.

A. BPL Provides High Speed Digital Communications Over Existing Power Lines

In this decision, we principally discuss what the Federal Communications Commission (FCC) calls "Access BPL" systems, which carry high speed data signals to neighborhoods from a point where there is a connection to a telecommunications network.[1] BPL data is transmitted at a much higher frequency than electricity, so the BPL signal can occupy the electric wires

[1] "BPL" in this decision refers to "Access BPL" as defined by the FCC: "A carrier current system installed and operated on an electric utility service as an unintentional radiator that sends radio frequency energy on frequencies between 1.705 MHz and 80 MHz over medium voltage lines or low voltage lines to provide broadband communications and is located on the supply side of the utility service's points of interconnection with customer premises." *In the Matter of Amendment of Part 15 regarding new requirements and measurement guidelines for Access Broadband over Power Line Systems,* ET Docket No. 04-37, and Carrier Current Systems, including Broadband Over Power Lines, ET Docket 03-104, FCC No. 04-245, Report and Order, (rel. Oct. 28, 2004) at para. 29 (FCC R&O):

without interfering with electric transmission. The power delivery system does, however, potentially interfere with the BPL signal. A variety of BPL technologies have been developed to address these technical challenges.[2]

B. Benefits of BPL

1. BPL Provides an Opportunity to Increase Broadband Competition

This Commission is taking the proactive step to set up a "BPL-friendly" regulatory framework because of our belief that BPL has the clear potential to bring valuable, additional competition to the California broadband market. At present, the California broadband market is principally dominated by digital subscriber line (DSL) service on conventional phone lines and cable modem services over upgraded cable television lines.[3] This Commission believes that more broadband competition will bring lower prices, innovative services, and the potential for new rate plans to consumers.

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[2] "Within a residential neighborhood, some system implementations complete the connection between the medium voltage lines and subscriber homes or businesses by using wireless links. Other implementations employ a coupler or bridge circuit module at the low-voltage distribution transformers to transfer the Access BPL signals across (thereby bypassing) these devices. In such systems, the BPL signals are brought into homes or businesses over the exterior power supply cable from the coupler/bridges, either directly, or via Access BPL adaptor modules. Typically, the medium voltage lines are carried overhead on transmission poles or tower mountings; however, in a large number of locations, and in newer subdivisions and neighborhoods, these lines are enclosed in underground conduits and the distribution transformers are mounted above ground on a pad, inside a metal housing." (FCC R&O, at para. 6.)

[3] Other broadband competitors include dedicated high speed lines, unlicensed wireless Internet access services, and fixed and mobile radio services.

2. BPL Could Expand Broadband Access to More Californians

BPL has the potential to provide a new broadband pipe to California's communities because existing electrical wires run to each home and business (the so-called critical "last mile"). Thus, electric utilities own valuable rights-of-way to consumers. The nation's power grid may be an untapped resource to provide another path for the delivery of broadband service to citizens.

Based on our review of current technology, technical and economic constraints may initially limit the potential of BPL to serve dispersed populations in rural areas.[4] We believe, however, that technology advances where there is a need. New strides in BPL technology soon may bring additional advanced broadband services to underserved areas in California. In general, we believe that increasing the number of broadband delivery platforms and facilitating broadband competition is one of the best ways to extend broadband access to rural areas. While some broadband providers may focus on urban markets, it is conceivable that others may adopt a business plan to serve niche markets which may include rural or other underserved communities. The support given for rapid BPL deployment by rural electric and telephone utilities in the FCC's BPL rulemaking reaffirms this potential.[5] By encouraging new facilities-based broadband platforms in our state, the Commission will enable our state to continue as a technology leader.

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[4] See Report of the Broadband Over Power Lines Task Force, the National Association of Regulatory Utility Commissioners (Feb. 2005) (NARUC Report), at p.13.

[5] The National Rural Telecommunications Cooperative and the National Rural Electric Cooperative Association filed joint comments supportive the goal of rapid BPL development. (FCC R&O, at para. 14.)

3. BPL Provides Reliability and Cost Savings to Electricity Consumers

BPL technology also can provide benefits to electrical customers by enabling valuable "smart grid" applications that could improve electrical system reliability and support the implementation of money-saving energy management systems. Potential utility applications include automatic meter reading, voltage control, equipment monitoring, remote connect and disconnect, power outage notification and the ability to collect data on time-of-day power demand.[6] We strongly encourage electric utilities to study BPL as a way to provide "smart grid" applications to California consumers.

C. Federal and State Agencies Have Recognized BPL's Potential

Federal regulatory agencies and a number of forward-looking state agencies have recognized BPL's potential and adopted policies to address key regulatory issues. The FCC's Report and Order noted that "this new technology offers the potential to give rise to a major new medium for broadband service delivery."[7] In its Report and Order, the FCC issued a change to its Part 15 rules for measures to mitigate radio interference caused by BPL. In general, BPL must operate on a noninterference basis relative to wired services.[8]

On October 14, 2004, the Chairmen of the FCC and the Federal Energy Regulatory Commission (FERC) issued an unusual joint statement, stating that "national policies should facilitate rapid deployment of all broadband

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[6] NARUC Report, at 13-18. "The term 'smart grid' refers to an electricity transmission and distribution system that incorporates elements of traditional and cutting-edge power engineering, sophisticated sensing and monitoring technology, information technology, and communications to provide better grid performance and to support a wide array of additional services to consumers." NARUC Report, at 13.

[7] FCC R&O at para. 13.

[8] *Id*, at para. 2.

technologies, including BPL"[9] They agreed that "[p]olicymakers at all levels should coordinate their efforts to promote a minimally intrusive policy framework for such technologies."[10]

The National Association of Regulatory Utility Commissioners (NARUC) convened a BPL Task Force in December 2003 to examine the potential of BPL and issued a report in February 2005. The NARUC BPL Task Force noted that "it will be primarily up to individual states to tailor appropriate regulatory roadmaps and responses."[11] The Task Force members also agreed that the regulatory issues surrounding broadband technologies should be encouraged through a "minimally intrusive approach," and that "the long term resolution of the various outstanding issues should not favor any technology over another."[12]

Individual states have begun addressing the regulatory issues surrounding BPL. Recent legislation in Texas addressed many of the most important regulatory issues slowing BPL deployment in that state.[13] Similarly, on January 25, 2006, the New York Public Service Commission initiated a proceeding to identify and address key regulatory issues.[14] This Commission recognized the need to provide regulatory certainty to encourage the

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[9] NARUC Report, at 2.

[10] *Id.*

[11] *Id* , at 3.

[12] *Id*, at 4.

[13] See TX S.B. No. 5, Use of Electricity Delivery System for Access to Broadband and Other Enhanced Services, Including Communications, § 43.001(c) (2005).

[14] New York State PSC, Case 06-M-0043, Proceeding on Motion of the Commission to Examine Issues Related to the Deployment of Broadband over Power Line Technologies, effective 1/25/06..

deployment of BPL to our citizens, and issued an Order Instituting Rulemaking (OIR) on September 8, 2005.[15]

D. Goal of Decision is to Provide Regulatory Certainty to Attract BPL Investment

Electric Power Research Institute (EPRI) noted in its BPL White Paper that "regulatory action or inaction could have a significant impact on the business case for BPL, pointing to the need for a proactive approach with regulators on this issue."[16] At present, the Commission is only aware of one BPL pilot program in California, which is SDG&E's pilot program in San Diego, California that commenced on September 1, 2005. This limited deployment is in contrast to greater levels of activity within states where policymakers have addressed the regulatory issues surrounding BPL.[17] We have heard from utilities and BPL providers that the cloud of regulatory uncertainty may be causing them to decide not to initiate projects in California.

When Governor Schwarzenegger recently proposed his comprehensive infrastructure investment plan, he emphasized that "[o]ur plan must not only expand the concrete highways that connect Los Angeles to San Francisco and Stockton-but the digital ones that connect Stockton to Shanghai, Sydney and Seoul."[18] To that end, today this Commission is taking the initiative to establish

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[15] Order Instituting Rulemaking concerning Broadband Over Power Line Deployment by Electric Utilities in California, Rulemaking (R.) 05-09-006 (September 8, 2005).

[16] Broadband Over Powerline 2004: Technology and Prospects. EPRI White Paper, November 2004, p. 3.

[17] TXU and Current Communications to Create Nation's First Multipurpose Smart Grid, TXU Corp. and Current Communications Group News Release, December 19, 2005. See http://www.txucorp.com/media/newsrel/detail.aspx?prid=916..

[18] State of the State Speech by California Governor Arnold Schwarzenegger, January 5, 2006. See http://www.governor.ca.gov/state/govsite/gov_htmldisplay.jsp.

a BPL-friendly regulatory framework to ensure that we have the most advantageous regulatory climate to attract major infrastructure investment in California's broadband infrastructure.

E. Proposed Regulatory Framework Protects Ratepayers, Aligns Shareholder Risks and Rewards and Provides Ratepayer Benefits

We believe that the regulatory framework in this decision protects ratepayers from the business risks associated with investment in BPL and protects the reliability and safety of the electric system. At the same time, we align shareholder risks and rewards in order to provide incentives for utility shareholders to take the financial risks associated with negotiating arrangements with BPL developers or developing a BPL system themselves through an affiliate.

II. Procedural Background

The Commission adopted an OIR concerning Broadband Over Power Line Deployment by Electric Utilities in California on September 8, 2005. Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) were identified as Respondents. Parties were ordered to file opening comments on the issues identified in the OIR by October 6, 2005 and reply comments by October 17, 2005. The Commission also preliminarily determined that there was no need for evidentiary hearings in this proceeding. Parties that believed evidentiary hearings were required had to file a motion requesting such a hearing by October 6, 2005.

On September 29, 2005, The Utility Reform Network (TURN) filed a motion requesting that the deadline for comments be extended by at least four weeks, and that the deadline for requesting evidentiary hearings be changed from concurrently with initial comments to concurrently with reply comments. An

Administrative Law Judge's ruling granted these requests and extended the deadline for opening comments to November 3, 2005, and extended the deadline for reply comments to November 15, 2005. The deadline for requesting evidentiary hearings was moved to November 15, 2005.

Opening comments were received on November 3, 2005. The parties that filed comments in this proceeding are Ambient Corporation, CCTA, the California ISP Association (CISPA), Californians for Renewable Energy (CARE), the City of Cerritos, the City and County of San Francisco, Current, CTIA—The Wireless Association (CTIA), Disability Rights Advocates , Greenlining, PG&E, SDG&E, SCE, TURN, Time Warner Telecom of California, the United States Department of Defense and All Other Federal Executive Agencies and the Utility Consumers' Action Network (UCAN).

PG&E, SCE, California Cable and Telecommunications Association (CCTA) and Current Communications (Current) filed a joint motion requesting a 20-day extension of time to file reply comments. TURN supported the joint motion, and SDG&E opposed the motion. The administrative law judge (ALJ) extended the deadline for filing reply comments and requests for evidentiary hearings to November 22, 2005.

Parties filed reply comments on November 22, 2005. Californians for Renewable Energy (CARE), Disability Rights Advocates, the Division of Ratepayer Advocates (DRA) (then known as the Office of Ratepayer Advocates), the Greenlining Institute (Greenlining) and TURN filed motions requesting evidentiary hearings.

On November 21, 2005 the ALJ issued a Notice of a Pre-Hearing Conference to be held on December 8, 2005 to determine the parties, positions of the parties, issues, and other procedural matters.

One important procedural issue is whether evidentiary hearings are necessary in this proceeding. Pub. Util. Code § 1701.1(a) provides that the Commission, "consistent with due process, public policy and statutory requirements, shall determine whether a proceeding requires a hearing. After reviewing the issues relevant to this decision, we hold that evidentiary hearings are not needed in this proceeding. This conclusion is supported by the ALJ and Assigned Commissioner.

Our decision not to hold evidentiary hearings is consistent with our decision in In Re Competition of Local Exchange Service (1995) 61 CPUC2d 597, 601. In that decision, the Commission addressed the issue of whether and when due process considerations require evidentiary hearings:

> Due process is the federal and California constitutional guarantee that a person will have notice and an opportunity to be heard before being deprived of certain protected interests by the government. Courts have interpreted due process as requiring certain types of hearing procedures to be used before taking specific actions.
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> The California Supreme Court has laid down a simple rule regarding the application of due process. According to the Court, if a proceeding is quasi-legislative, as opposed to quasi-judicial, there are no vested interests being adjudicated, and therefore, there is no due process right to a hearing. (Citing Consumers Lobby Against Monopolies v. Public Utilities Commission (1979) 25 Cal.3d 891, 901; *Wood v. Public Utilities Commission* (1971) 4 Cal.3d 288, 292.)

Pursuant to this analysis, the Commission in In Re Competition of Local Exchange Service decided that evidentiary hearings were not required, because the proceeding at issue was quasi-legislative. Similarly, this proceeding is not a quasi-judicial matter which requires a hearing. We do not part from our preliminary categorization, and maintain that this proceeding is quasi-legislative proceeding. No vested interests of any party are being adjudicated. Also, no

party other than TURN challenged the Commission's preliminary categorization.[19]

Furthermore, the record provides no persuasive reason to depart from our preliminary conclusion that there is no need for evidentiary hearings. The issues in this proceeding, for the most part, involve policy and legal conclusions that have been addressed in briefs. Also no party has demonstrated a disputed material issue of fact that would affect our deliberations. (See Prehearing Conference (PHC) transcript, at 15-16.)

III. Utility Affiliate Participation

A. Summary

Our primary goal in this proceeding is to speed the deployment of BPL technology. In order to allow for the most possible ways in which energy utilities might choose to deploy BPL, we will allow the participation of utility affiliates in the provision of BPL services.

Based upon the state of the record in this proceeding, policy and law indicate that the Commission's existing Energy Affiliate Rules should be applied to energy utility affiliate participation in the provision of BPL services. This represents a change from the preliminary intention stated in the OIR that we would apply the Telecommunications (Telco) Affiliate Rules, but the comments and further analysis have convinced us that the Energy Affiliate Rules are more appropriate. While new, custom-tailored rules may be theoretically more

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[19] TURN objected to a preliminary determination exclusively deeming this proceeding as quasi-legislative, suggesting instead a bifurcated proceeding in which policy issues would be deemed quasi-legislative in a first phase of the proceeding and that fee issues (if any) be deemed adjudicative in a second phase of the proceeding. Our decision today does not set fees, instead making them subject to negotiation between BPL providers and utilities. We decide related § 851 issues on a policy basis. Accordingly, we decline to adopted TURN's suggestion.

desirable, there is little or no record support for new rules. In our upcoming technical workshop we will consider whether we should develop new, BPL-specific affiliate transaction rules, or continue to use the Energy Affiliate Rules.

B. Nature of BPL Provider

As a threshold question, we need to determine who is allowed to provide BPL services. The possibilities that have been raised in this proceeding include third parties, utility affiliates, and the energy utilities themselves.

The provision of BPL services by an independent third party has sometimes been referred to as the "landlord-tenant" model, with the energy utility acting as the landlord and owner of the facilities (i.e. the power lines), and the third party actually providing the BPL service. The utility and third party BPL provider would negotiate a contractual arrangement by which the BPL provider would obtain access to the necessary utility infrastructure in exchange for some form of value flowing to the utility.[20]

The OIR clearly contemplated this as a possible model, the non-utility BPL providers (e.g. Ambient and Current) clearly prefer this model, and there was widespread support for this model.[21] For example, SCE states: "We also agree with the Commission's decision to promote a "landlord" model for electric utilities. At this point, SCE lacks the personnel and expertise to become a BPL provider itself…The "landlord" model allows SCE to concentrate on its core business activities and shift responsibility and risk from the company to third parties." (SCE Opening Comments, p. 1.)

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[20] The parties disagreed as to what an energy utility could reasonably expect in return in addition to pole access fees.

[21] Greenlining does not support the landlord-tenant model. (PHC Transcript, p. 21.)

As TURN points out, the landlord-tenant model offers a number of advantages, including alignment of ratepayer and shareholder incentives, access to BPL providers' technical and marketing expertise, true arms-length contract negotiations, minimizing the need for regulatory oversight, and providing the greatest potential ratepayer benefits. (TURN Opening Comments, pp. 5-8.) Accordingly we will allow BPL services to be provided by independent third parties.

The question of whether BPL services should be allowed to be provided by utility affiliates was more contentious. The energy utilities generally appear supportive of allowing affiliate participation, although SCE indicated that it was not currently interested in having an affiliate provide BPL services. (PHC Transcript, p. 5.) PG&E and SDG&E, while responding to the OIR's call for comments on which affiliate rules should apply (see, e.g. PG&E Opening Comments, pp. 6-7; SDG&E Opening Comments, pp. 15, 23), also stated that they did not currently have plans to offer BPL services through affiliates, but would evaluate their options in light of what the Commission decides in this proceeding. (PHC Transcript, pp. 8-9.)[22] As Current put it, [B]ased upon the comments filed by the utilities in this proceeding, it is not clear that any BPL deployments will involve affiliate transactions." (Current Reply Comments, pp. 3-4.)

On the other hand, concerns about utility affiliate provision of BPL services were advanced by TURN, UCAN, ORA, Disability Rights Advocates, Time Warner Telecom, and CISPA. Most of these concerns are rather generalized, although TURN argues that if the BPL vendor was a utility affiliate, that the "incentive compatibility between ratepayers and shareholders" that

[22] SDG&E does, however, appear to be in interested in the possibility of providing BPL service through an affiliate. (PHC Transcript, pp. 35-37.)

exists under the landlord-tenant model would be destroyed. According to TURN, this is because "[T]he utility would lack the financial incentive to make the best possible deal in terms of maximizing lease payments, because those payments would have to be shared with ratepayers, while profits remaining with the affiliated BPL vendor would flow directly to the shareholders of the parent holding company." (TURN Opening Comments, p. 8.)

TURN may very well be correct, but the possibility of financial shell games of this sort is not unique to the provision of BPL, but rather is inherent in the context of a parent company consisting of both a regulated utility and unregulated affiliates. (See, e.g. D.02-0-039, as modified by D.02-07-043.) The Commission has chosen to allow regulated utilities to have unregulated affiliates, and to address concerns about the relationship between the regulated and unregulated sides via affiliate transaction rules. Accordingly, it is more consistent with Commission practice to allow participation of utility affiliates in the provision of BPL, subject to our affiliate transaction rules, as opposed to prohibiting an unregulated affiliate from engaging in a particular kind of business.

Finally, we simply do not know whether the landlord-tenant or the utility affiliate approach will best expedite the rapid deployment of BPL. Despite the utilities' apparent ambivalence toward offering BPL via affiliates, it may ultimately prove to be the fastest way to deploy BPL, and we do not want to preclude that possibility. Accordingly, we will allow the participation of utility affiliates in the provision of BPL services.

Finally, it is possible that the regulated energy utilities could themselves provide BPL services, either as a tariffed (above the line) or non-tariffed (below the line) service. The tariffed utility service approach is supported by Greenlining, but there otherwise appears to be little interest in the utility itself

being the BPL provider, and the OIR did not address it. Accordingly, the record is scant on direct utility provision of BPL services. Again, we will not preclude direct utility provision of BPL, as it may prove to be effective, but it will not be governed by the approach we adopt in this decision. Rather, should a regulated energy utility wish to provide BPL service on a tariffed basis, it should seek Commission approval to do so under the appropriate conventional Commission procedure, such as a general rate case.[23]

C. Choice of Affiliate Rules

Since we are allowing utility affiliate participation in the provision of BPL services, we need to determine which affiliate rules are most appropriate. BPL has potential applications for both energy and telecommunications, resulting in a range of possible choices. The Commission could potentially choose to use the existing Energy Affiliate Rules, or the existing Telco Affiliate Rules,[24] or come up with a new set of rules specifically designed for BPL.

At present, the record in this proceeding is inadequate to support the development of new, BPL-specific affiliate rules, so our choices are limited to the existing Energy or Telco Affiliate Rules. Use of the Telco Affiliate Rules, as

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[23] If an energy utility wishes to offer BPL service on a non-tariffed basis, that offering would be governed by our existing Energy Affiliate Transaction Rules.

[24] The Telco Affiliate Rules, cited in the OIR as being embodied in D.93-02-019, are more of the nature of reporting requirements than actual rules governing behavior, but the practice in this proceeding has been to refer to them as "rules," and that convention is continued here. These rules apply to all electric, gas, and telephone utilities. The current Energy Affiliate Rules supplement the Telco Affiliate Rules, and are contained in Appendix B to D.98-08-035.

proposed in the OIR, is supported by SDG&E and Ambient, while use of the Energy Affiliate Rules is supported by PG&E and SCE.[25]

PG&E and SCE argue that as energy utilities, they are familiar with the Energy Affiliate Rules, have employees trained to comply with those rules, and have compliance and reporting systems in place under those rules. (See, e.g. PG&E Reply Comments, pp. 13-14.) They also disagree with the conclusion of the OIR that the Energy Affiliate Rules are inapplicable because BPL is a communications platform, and is not a service "that relates to the use of electricity." (SCE Opening Comments, p.8; PG&E Reply Comments, p.14.)[26]

Based on the record of this proceeding, it has become clear that BPL is potentially a service that relates to the use of electricity. As Current states, "In the area of utility applications, BPL enables utilities to implement enhanced power distribution services such as automated meter reading, automated power outage and restoration detection, power quality monitoring, load management and demand side management." (Current Opening Comments, p. 2.)[27]

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[25] ORA, TURN, and Current also question the OIR's preliminary determination that the Telco Affiliate Rules would apply to BPL.

[26] The applicable language defining the scope of the Energy Affiliate Rules reads:

> II.B. For purposes of a combined gas and electric utility, these Rules apply to all utility transactions with affiliates engaging in the provision of a product that uses gas or electricity or the provision of services that relate to the use of gas or electricity, unless specifically exempted below. For purposes of an electric utility, these Rules apply to all utility transactions with affiliates engaging in the provision of a product that uses electricity or the provision of services that relate to the use of electricity. For purposes of a gas utility, these Rules apply to all utility transactions with affiliates engaging in the provision of a product that uses gas or the provision of services that relate to the use of gas.

[27] Current expands on this in some detail, and introduces its discussion by stating:

> "Electric distribution utilities can use BPL to improve their distribution networks in a variety of ways. For example, BPL will provide

Accordingly, under the express language of our Energy Affiliate Rules, the Energy Affiliate Rules apply.[28] The OIR's conclusion to the contrary was erroneous.

From a policy standpoint, applying the Energy Affiliate Rules also makes sense. The utilities who may be offering BPL services through affiliates are all energy utilities, are already subject to the Energy Affiliate Rules, and have proven they can operate under those Rules. As SCE and PG&E point out, they already have systems set up to ensure their compliance with those rules. Finally, the Energy Affiliate Rules were litigated, analyzed, and promulgated by the

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for more efficient and reliable distribution networks by enabling electric utilities to obtain information in real time from designated points along their distribution networks (e.g. substations, capacitor banks, switches, transformers and voltage regulators) and to transmit the information to their back-office systems, thus providing an "intelligent" power distribution network. The benefits of such an intelligent network can be enormous. As one investor report explains, "distribution utilities may find that a BPL-enabled grid offers compelling savings in operation, maintenance and construction cost." A second report adds that "BPL offers utilities upside ROI [return on investment] over time in incremental revenue streams, operational savings, efficiencies and productivity from turning 'dumb' electrical networks into 'smart' digital networks." Utilities are exploring BPL for just these reasons, and the Commission's proposed rules would facilitate utilities ability to develop and deploy in wide scale the BPL applications they desire. The Electric Power Research Institute ("EPRI") estimates that a smart electricity system could increase productivity by 0.7% per year, leading to a $3 trillion increase in GDP by 2025. Indeed, the largest benefits of BPL may very well stem from what CURRENT calls Enhanced Power Distribution Service ("EPDS") functions, some of which are described below." (Id., pp. 10-12, footnotes omitted.)

[28] SCE points out that even if the OIR were technically correct, it is well within the Commission's authority to change the applicable definition to expressly include those affiliates that provide BPL (SCE Opening Comments, p.8), and PG&E agrees. (PG&E Reply Comments, p. 15.)

Commission taking into consideration the business and regulatory context of the energy utilities.

SDG&E, on the other hand, argues that applying the Energy Affiliate Rules to a potential BPL affiliate would place that affiliate at a competitive disadvantage in the broadband market, as it would be not only a new entrant, but would also be subject to different rules than DSL providers (who are presumably subject to the Telco Affiliate Rules). (SDG&E Reply Comments, pp. 20-21.) According to SDG&E, for there to be a level playing field in the broadband market, energy utility affiliates should be subject to the Telco Affiliate Rules. (Id.)

SDG&E's policy argument is not well founded. Telecommunications utilities are not only governed by the Telco Affiliate Rules, but are also subject to other substantive rules (such as FCC rules, or company-specific rules promulgated in individual proceedings) that apply to telecommunications utilities but not to energy utilities. Applying only the Telco Affiliate Rules to an energy utility would actually result in that energy utility being subject to less regulation than a competing telecommunications utility. In other words, applying only the Telco Affiliate Rules to a BPL affiliate of an energy company has the potential to give that affiliate a competitive advantage in the broadband market.

In addition to looking at the nature of the regulated utility, it is also worthwhile to consider the nature of the service to be provided, as we did in the OIR, bearing in mind that the market, rather than the regulator, should make the ultimate determination of what that service is. Based on our record, it appears that BPL has elements that are both telecommunications and energy related. It can provide a pipe for internet, voice, and other non-energy-related telecommunications. On the other hand, it can also provide for advanced

metering, distribution system monitoring, and other uses to support and enhance electric service quality and reliability.

At this time, our crystal ball does not provide us enough information to predict the balance between the telecommunications aspects of BPL and those related to the energy platform, but we do not see this determination as particularly relevant. We are not convinced that the energy utilities, the broadband market, or California consumers benefit in any way from unique treatment under the telecommunications affiliate rules. Moreover, categorizing this Commission's handling of energy utilities as telecommunications utilities because of their offering of BPL is akin to giving the FCC regulatory control over automobile emissions because all cars have radios.

The existing affiliate rules and the nature of the regulated utilities indicate that the Energy Affiliate Rules should apply to BPL affiliates. The rules and the balance of policy support the application of the Energy Affiliate Rules as the most appropriate choice.[29]

SDG&E, in response to a question from the assigned ALJ at the pre-hearing conference, identified one specific concern regarding the use of the Energy Affiliate Rules. Counsel for SDG&E stated:

> SDG&E has spent and is spending several million dollars of shareholder money upon on a pilot. Now at this point in time, that's a risky thing to do because the rules are uncertain. Under some interpretations of the affiliate transaction rules that apply in the energy industry, the investment that is now being made by shareholders within the utility, the fruits of that investment could not be utilized by a BPL affiliate if the Commission decides to authorize such a business endeavor. (PHC Transcript, pp. 35-36.)

[29] If ultimately it turns out that BPL is used only for telecommunications purposes, we have the ability to alter this determination.

It is not clear from the very limited record before us if SDG&E's fear of a particular interpretation of the affiliate transaction rules is justified. Nevertheless, we see no reason to bar the transfer of the fruits of shareholder-funded development of BPL to a utility BPL affiliate. We have the authority to interpret our own affiliate transaction rules, or to create exceptions to those rules. SDG&E's particular concern does not present an obstacle to the application of the Energy Affiliate Rules. We suggest that SDG&E, in its comments on the draft decision, suggest a process by which it can identify the shareholder-funded benefits it may wish to provide to an affiliate, and how those benefits would be transferred to an affiliate.

The Energy Affiliate Rules were developed through a lengthy and thoughtful process, do not appear to have hindered the formation or operation of affiliates, and their use is supported by the two largest of the three major energy utilities. The Energy Affiliate Rules provide regulatory certainty in the initial development and deployment of BPL, and their adoption is supported by the record in this proceeding, and is consistent with our previous decisions. If parties are interested, we will consider developing BPL-specific affiliate transaction rules at our upcoming technical conference.

IV. Protecting Ratepayers, Aligning Shareholder Risks and Rewards, and Providing Ratepayer Benefits

In OIR we stated that "the Commission intends to encourage BPL deployment in a manner that does not harm ratepayers." (OIR, p. 2.) The OIR also proposed that BPL projects should only be financed with shareholder or third party funds and that all financial risks and rewards from BPL projects should accrue to the shareholder or third party investors. (OIR, p. 10.) We reiterate and implement these policy objectives.

A. Protecting Ratepayers

As several parties acknowledge, the ultimate commercial success of any particular BPL deployment is uncertain. SCE, for one, notes the "very real potential [cable modem, DSL, and wireless broadband technologies] have to preempt BPL technology from ever developing into a new source of price and service competition." (SCE Reply Comments, p.3.) Even before commercial deployment, BPL faces technological challenges. Investors in BPL will face these competitive and technological risks. If BPL is commercially unsuccessful, a BPL company could lose significant sums of money. To the extent ratepayers pay for the incremental costs of deploying and operating a BPL network, ratepayers are assuming these financial risks.

As a matter of policy, however, we do not believe the Commission or the utilities we regulate should treat ratepayers' wallets like venture capital funds. Ratepayer dollars should not be invested in highly risky emerging technologies. For this reason ratepayer funds should not be used to research, develop or operate a BPL system unless the expenditures can be justified solely on the basis of utility benefits. Any BPL expenditures that have any other purpose, such as delivering commercial broadband service, must be financed entirely by utility shareholders or third parties.[30]

B. Aligning Shareholder Risks and Rewards

Shareholders or third parties will not assume the risks of pursuing BPL deployment without some expectation of rewards. Therefore, the OIR proposed that because the BPL projects should only be financed with shareholder or third

[30] Any use of ratepayer funds for BPL-related goods and services justified on the grounds of utility ratepayer benefit, if not specifically pre-approved, will be subject to reasonableness review.

party funds, all financial risks and rewards derived from BPL project should accrue to the shareholders or third party investors. (OIR, p. 10.) We adopt that approach.

Before a BPL system is even installed, there are steps that must be taken to pave the way for that installation. While likely less costly than the actual deployment and operation of BPL technology, such steps are not without cost. Accordingly, even if utility shareholders are not investing money in the BPL system itself, shareholders still incur a variety of financial risks related to "developing, negotiating or performing its obligations under any contract with a BPL vendor." (PG&E Opening Comments, p. 9.) Utility shareholders would seem unlikely to incur even these risks without some expectation of financial reward. We believe an adequate revenue sharing mechanism will provide sufficient shareholder incentives. As an emerging technology with tremendous promise, the potential revenue and savings from BPL, when coupled with a fair revenue sharing mechanism should provide necessary incentives to utility shareholders.

One way to provide utility shareholders an incentive to pursue BPL projects under this scenario is to allow the utility to charge the third party BPL company for access to the utility's wires, and to apply a mechanism by which utility shareholders receive a share of these access fees.

To this end, the OIR proposed that a percentage allocation be defined that shares access fees between shareholders and ratepayers. The OIR went on to state that "the allocation should provide shareholders a strong incentive to pursue BPL projects while also providing direct financial benefits to ratepayers." (OIR, p.10.)

We are not as a policy requiring that BPL companies, whether affiliated or unaffiliated, pay access fees to a utility, but we also do not want to preclude the

electric utility from receiving such fees.[31] Monetary compensation from the BPL company to the electric utility may or may not be a component of the contractual relationship between a utility and a BPL company. We do not agree with Current's proposal that we adopt a rule similar to that adopted by the Texas legislature, which would restrict utilities from receiving compensation beyond pole attachment fees. (Current Opening Comments, p.19, citing Texas Public Utility Regulatory Act Sec. 43.102(b).) Rather, we want to allow the utility and BPL company to agree to appropriate access terms in a manner that gives utility shareholders an incentive to enter into negotiations with potential BPL developers, and accordingly we will not circumscribe the scope of outcome of those negotiations.

C. Providing Ratepayer Benefits

ORA has suggested that the Commission's BPL regulatory framework should focus on providing direct financial benefits to ratepayers. However, as we have already discussed, the principal benefits of BPL seem to be most likely to come in the form of utility applications and increased broadband competition and access. While insulating ratepayers from financial risk is an essential objective, providing direct financial benefits to ratepayers is only desirable to the extent that shareholder incentives to pursue BPL are not significantly weakened.

A regulatory policy that seeks to maximize the flow of dollars to ratepayers by asking utility shareholders or third parties to assume the

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[31] SDG&E, however, has already stated that it believes that pole attachment fees should be the "sole compensation" for use of utility poles and wires for BPL. (SDG&E Opening Comments, p. 21, SDG&E Reply Comments, p. 26.) This up-front disavowal of intent to seek additional revenue from a BPL provider is puzzling, unless SDG&E has already determined it is going to offer BPL service through an affiliate, rather than by contracting with a third party.

incremental financial risks while apportioning the financial rewards to electric ratepayers will ultimately be unsuccessful—shareholders and third parties will not put dollars at risk solely for someone else's benefit, and the ratepayer benefits will never materialize. If BPL does not enter the marketplace, neither the public nor the ratepayers will see any benefit, financial or otherwise.

One benefit to the broadband market that this Commission advocates is nondiscriminatory access to the content of one's choice on the Internet. This ratepayer benefit, without significant incremental cost to consumer or the BPL provider, ensures that California's BPL networks deliver content regardless of the relationship between the network owner, the ISP, and the content provider. If a BPL provider or an ISP utilizing those facilities makes prioritization of packets available, it must do so for all like packets, consistent with federal and state law.

1. Revenue Sharing

Parties have proposed various mechanisms for allocation of "access fees" or other revenues received by the utility from the BPL provider. How exactly this will play out in practice remains to be seen, as we have one utility arguing that pole attachment fees are insufficient compensation for BPL use of a utility system (PG&E Opening Comments, p. 8), while another argues that pole attachment fees are the only compensation that a BPL provider should pay (SDG&E Opening Comments, p. 21). Similarly, one BPL provider expresses some willingness to pay additional fees (Ambient Opening Comments, p. 6), while another is opposed to additional fees (Current Opening Comments, pp. 18-19).

Nevertheless, to provide certainty and to avoid future conflicts, we will allocate any potential additional fees received by the utilities from BPL providers

(in addition to the standard pole attachment fees, which flow through to ratepayers). We have a wide range of proposals to consider, but the field is narrowed considerably by applying the criteria set forth in the OIR, which are that the sharing mechanism should: 1) protect ratepayers from financial risk, 2) align shareholder risks and rewards, and 3) provide direct financial benefits to ratepayers. Many proposals meet one or two of these criteria, but fail at the remainder.[32] On balance, we find SCE's proposed revenue sharing mechanism to best meet all three criteria, however we find that the limited onetime and ongoing investment requirements for BPL merit a calculation of the investment as "passive" for revenue sharing purposes.

2. SCE's Proposal

SCE proposes applying its existing revenue-sharing mechanism for other operating revenues (OOR) as adopted in D.99-09-070. SCE's OOR sharing mechanism would allocate gross revenues based on a 90/10 shareholder/ratepayer split if the non-tariffed product or service is classified as "active", or based on a 70/30 shareholder/ratepayer split if the non-tariffed product or service is classified as "passive."[33] SCE's sharing mechanism replaced the utility's Performance-Based Ratemaking (PBR) mechanism for OOR.

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[32] For example, ORA's proposal protects ratepayers from financial risks and provides direct financial benefits to ratepayers, but does not align shareholder risks and rewards.

[33] SCE's provision of access to a BPL company would be classified as "active" if it involves incremental shareholder investment of at least $225,000. (See, D.99-09-070, p. 63.) Owing to the incremental shareholder investment being predominantly obligatory legal work consistent with contracting generally, the shareholder investment in BPL is not inconsistent with "passive" investment. Additionally, the waiver of 851 requirements envisioned by this order is consistent with a small scale, or "passive" contribution by shareholders.

We agree with SCE that its OOR mechanism protects ratepayers from financial risk. The decision establishing SCE's OOR mechanism states that "the incremental revenues would be subject to the proposed gross revenue sharing mechanism, while the incremental costs would be borne entirely by shareholders." (Id., p. 7.) The decision also clearly states that the framework "insulates the ratepayers from all liability associated with Edison's product and service offerings, including but not limited to third-party litigation, environmental problems, and the like." (Id., Ordering Paragraph 3(c). Together, these protections will protect ratepayers from assuming the financial risks associated with SCE's contracting activities with a third party BPL company.

SCE's OOR mechanism was designed to align shareholder risks and rewards in order to "encourage optimized utilization of utility assets." (Id., Agreement A.) By providing shareholders with seventy percent of gross revenues from "active" non-tariffed products and services, shareholders should receive a large fraction of the rewards in return for the incremental risks they incur. The exception is when the profit margin is slim, in which case the thirty percent of gross revenues going to ratepayers could substantially reduce or even eliminate what would otherwise be shareholder profits.

Finally, SCE's sharing mechanism provides direct financial benefits to ratepayers in all cases in which gross revenues are positive. In sum, SCE's existing OOR revenue-sharing mechanism satisfies our three criteria. We therefore adopt this mechanism for all electric utilities for the treatment of any access fees that the utilities receive in the context of BPL deployment.

We considered allowing each utility to use its own individual proposal, but we had concerns that the proposals of PG&E and SDG&E were not as good at protecting ratepayers from financial risk and aligning shareholder risks and rewards as the SCE proposal.

V. Access to Poles and Rights of Way

We believe that BPL has the potential to increase broadband competition, which could result in significant public benefits. At the same time, however, we do not want to create a regulatory structure that treats any broadband technology unfairly. As we emphasized in the OIR, it is important to maintain "regulatory neutrality toward different broadband technologies." (OIR, p. 7.)

Some existing broadband providers use electric utility poles and rights of way, so we need to ensure that electric utilities do not discriminate in favor of BPL at the expense of broadband competitors using the same infrastructure. The Commission has existing rules governing access to public utility rights of way and support structures by telecommunications carriers and cable TV companies (D.98-10-058, Appendix A, referred to as the "ROW Order".) Those rules continue to apply to electric utilities with BPL attachments, and we order the electric utilities to apply the ROW Order to determine the terms under which access to poles and rights of way should be granted to BPL companies.

The ROW Order describes the process for negotiating right of way access agreements between electric utilities and telecommunications carriers seeking to place equipment in the electric utilities' rights of way. The rules encourage negotiated outcomes, but provide for a cost-based framework to be applied by the Commission in the case of disputes.[34]

[34] "These rules are to be applied as guidelines by parties in negotiating rights of way access agreements. Parties may mutually agree on terms which deviate from these rules, but in the event of negotiating disputes submitted for Commission resolution, the adopted rules will be deemed presumptively reasonable." (D.98-10-058, Appendix A, Rule I. A.)

An essential element of the ROW Order is the requirement that the utility not discriminate in its fees for pole attachments.[35] This requirement is applicable to BPL. The pole attachment fee an electric utility charges a BPL company for a given attachment can only differ from the fee charged to another company on the same pole to the degree those differences can be justified by the particular circumstances and do not reflect anticompetitive discrimination.[36]

PG&E and SCE argue that BPL companies should not be granted mandatory access rights to utility rights of way. (PG&E Opening Comments, p.8, SCE Reply Comments, p.15.) We agree, and are not requiring mandatory access through application of the ROW Order. However, if a utility grants access to a BPL company, the utility must provide equal access to all telecommunications carriers and cable TV companies, priced on a non-discriminatory basis as required by the ROW Order.

A. CCTA's Concerns

The California Cable and Telecommunications Association ("CCTA") notes that the ROW Order requires stricter adherence by telephone utilities than by electric utilities. CCTA goes on to state that "with the emergence of BPL into the marketplace, the Commission must now implement rules that ensure that electric utilities cannot favor their BPL affiliates or partners at the expense of

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35 "A utility may not charge a telecommunications carrier or cable TV company a higher rate for access to its rights of way and support structures than it would charge a similarly situated cable television corporation for access to the same rights of way and support structures." (D.98-10-058, Appendix A, Rule VI. B. c.)

36 "It is unrealistic to expect that all ROW access agreements will be uniform with respect to prices, terms, or conditions. Differences are acceptable as long as they are justified by the particular circumstances of each situation, and do not merely reflect anticompetitive discrimination among similarly situated carriers." (D.98-10-058.)

other broadband providers." (CCTA Opening Comments, p.12-13.) Accordingly, CCTA recommends changes to the Commission's existing rules. (Id.)

We recognize that an electric utility's interests in BPL creates new incentives to discriminate against other broadband providers. However, even without CCTA's proposed changes, the ROW Order protects telecommunications providers protection against discriminatory behavior, and we believe this protection is adequate.[37] We do not adopt CCTA's proposed changes.

CCTA also notes that the ROW Order says "electric utilities' use of its own facilities for internal communications in support of its utility function shall not be considered to establish a comparison for nondiscriminatory access." (ROW Order). CCTA expresses a concern that an electric utility may blend its internal communications equipment with the BPL system, and therefore a utility's granting of access to itself for its internal communications network would not be subject to the non-discrimination rules in the ROW Order. While we do not know how the installation of BPL systems will unfold over time, it is not the intent of this Commission to waive non-discriminatory access requirement simply by blending internal communications and BPL systems. We will not amend this portion of the ROW Order now, but we acknowledge that there may be the potential for discrimination of the sort described by CCTA despite this Commission's stated position against such matter. Should such discrimination

[37] A complaint may also be filed with the Commission if the electric utilities practice discriminatory behavior with respect to right of way access.

occur, we expect that it will be brought to our attention,[38] and we can at that time impose an appropriate remedy.

B. Underground Attachments

SDG&E and Current note that installing a BPL system on underground power lines could require attachment of BPL equipment to the inside or outside of underground or surface transformer enclosures. (SDG&E Opening Comments, p. 10-11 and Appendix A; Current Opening Comments, p. 6.) We do not adopt a specific cost-based formula for such attachments, but note that that ROW Order applies.

SDG&E proposes a cost-based formula to calculate attachment fees for the attachment of what it describes as a typical BPL electronics box to the exterior of a typical SDG&E transformer enclosure. (SDG&E Opening Comments, p.10-12 and Appendix A.)

Attachments to support structures such as transformer enclosures fall under the definition of "pole attachments" in the ROW Order,[39] so we do not need to approve a new cost-based method for determining access fees for transformer enclosures, since the ROW Order already describes the methodology that should apply. Furthermore, we note that the ROW Order does not require the Commission to establish cost-based attachment fees unless the utility and company attaching the equipment "are unable to agree upon the terms, conditions, or annual compensation for pole attachments." (ROW Order, VI, B.) At this stage, no party has come before the Commission with a dispute over

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[38] Again, a complaint would be an appropriate vehicle for allegations that an electric utility is abusing the internal communications exemption to discriminate against other companies using or seeking access to electric utility rights of way.

[39] "'Pole attachment' means any attachment to surplus space, or use of excess capacity, by a telecommunications carrier or a cable TV company for a communications system on or in any support structure owned, controlled, or used by a public utility." (ROW Order, Rule II. C.)

attachment fees for BPL equipment, so there is no need to approve a specific calculation for SDG&E or any other utility. However, if this Commission discovers attachment fees for transformer enclosures or similar points of attachment are inconsistent with the nondiscriminatory access a healthy market requires, we will seek out cost-based rates in a new proceeding. This determination is consistent with TURN's noting that determining a specific attachment fee is outside the scope of this quasi-legislative proceeding.

Based on the record before us, it appears that there are far fewer underground attachments to utility infrastructure than there are pole attachments.[40] This suggests that opportunities for an electric utility to discriminate with regards to transformer enclosure attachments is more limited than is the case for pole attachments. Nonetheless, where opportunities exist for the electric utilities to practice discriminatory behavior, the rules contained in the ROW Order apply.

VI. Use It Or Lose It

PG&E and SCE responded to the OIR's question regarding the possible idling of BPL facilities for anti-competitive purposes by recommending a "use it or lose it approach." As PG&E put it, "The Commission should adopt rules that require entities that acquire rights to a utility's system for the express purpose of BPL provision to begin implementation and service of BPL within a certain period of time, or forego their rights to do so." (PG&E Opening Comments, p. 6.) PG&E and SCE cite as an example the existing rule that requires a Competitive Local Carrier (CLC) to use space within nine months of the date when a request

[40] For example, according to TURN's table summarizing pole attachment data, only one of the three major electric utilities, SCE, collects revenues from underground attachments. (TURN, Opening Comments, p.29.)

for access is granted, or be subject to reversion of access to the electric utility. (Id., SCE Opening Comments, p. 7.) SCE agrees with PG&E that the Commission should establish similar reversionary rules for BPL use of electric utility assets.

Ambient agrees with the recommendation of PG&E and SCE (Ambient Reply Comments, pp. 25-26), but Current and SDG&E disagree. Current argues that such fears are unfounded (Current Opening Comments, pp. 22-23). SDG&E argues that imposition of an "artificial deadline" would provide the wrong basis for making decisions regarding BPL deployment. (SDG&E Reply Comments, p. 25.)

We are not in favor of a competitor acquiring access to utility infrastructure, only to idle it to gain a competitive benefit, and so we adopt a rule here of five years from the awarding of a contract. SDG&E points out that the technology is changing and developing rapidly, and we do not want to preclude the choice of a slightly slower but significantly better BPL, however it is the stated goal of this Commission to encourage the rollout of BPL as a new path for broadband to the home. The utilities are clearly aware of the possibility of anti-competitive behavior, and should take it into consideration in their contract negotiations with any BPL providers that a timely rollout of this important technology is essential to serious participation in this market. While we would prefer to allow this issue to be addressed in contract negotiations, a delay of greater than five years seems to be a reasonable outer limit for California's broadband market.

VII. Electrical Equipment Repair and Maintenance

We noted in the OIR that electric equipment problems may be identified in the process of installing a BPL system. The OIR goes on to propose that "costs directly related to the repair and maintenance of existing electrical equipment for

the purposes of electric service reliability (e.g., cracked insulators) be allocated to electricity operations. Costs directly related to BPL installation or operation should be allocated to the BPL operator." (OIR, p.11.) We adopt the OIR's approach. Costs should be allocated on a cost causation basis.

This approach should not be a problem in cases where BPL services are provided by a third party. If BPL services are provided by a utility affiliate, it could create an incentive for cross-subsidization of BPL by utility ratepayers by mischaracterizing the nature of the work done, but our policy is that our utility affiliate rules safeguard against such possible abuses.

VIII. Safety and Reliability

The safety and reliability of the electric delivery system is a principal concern of the Commission. Parties noted that BPL poses unique safety issues since it is attached directly to energized electric wire. We find this to be a compelling reason for not pursuing an open or mandatory access model for BPL deployment. Since the utilities continue to be responsible for maintaining high standards of safety and reliability, we expect the utilities to determine whether or not BPL equipment can be installed on their system, who can install the equipment and how the equipment should be installed and operated.

To ensure that the Commission's General Orders related to overhead and underground electric lines are address issues introduced by BPL, we adopt the proposal put forward in the OIR:

> Electric utilities must continue to comply with the rules, requirements, and standards promulgated by the Commission's General Order #95, which applies to the construction of overhead lines, and General Order #128, which applies to the construction of underground electric supply and communication systems. As previously noted in D.98-10-058, these are minimum standards and the utilities may require additional safeguards and conditions as necessary to ensure safety and service. If in the course of implementing BPL projects utilities identify a need to revise applicable Commission rules or General Orders, the utilities are free to

> request appropriate relief from the Commission and the CPUC will address the request expeditiously. Utilities shall ensure that their compliance with the Commission's GO #95 and GO # 128 and their setting and application of additional safeguards and conditions is performed in a competitively neutral manner with respect to other communications and information providers who seek similar access. (OIR, p.12)

IX. Public Utilities Code Sections 851 and 853(b)

Summary

In the OIR, we raised the possibility of exempting BPL transactions from the requirements of Public Utilities Code section 851, pursuant to our authority under section 853(b).[41] (OIR, pp. 5-6.) Some parties applauded this approach, while others criticized it. We now confirm that we are adopting a policy of exempting certain BPL transactions from section 851.

A. Party Positions

PG&E supports exempting BPL transactions from section 851 review, arguing that such review is not necessary to protect the public interest, and calling section 851 review an "unnecessary regulatory hurdle." (PG&E Opening Comments, p. 14.) SDG&E concurs, arguing that requiring a section 851

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[41] Public Utilities Code §851 states, in relevant part, that "No public utility…shall sell, lease, assign, mortgage, or otherwise dispose of or encumber the whole or any part of its…line, plant, system, or other property necessary or useful in the performance of its duties to the public…without first having secured from the commission an order authorizing it so to do." Section 853(b) reads: (b) The commission may from time to time by order or rule, and subject to those terms and conditions as may be prescribed therein, exempt any public utility or class of public utility from this article if it finds that the application thereof with respect to the public utility or class of public utility is not necessary in the public interest. The commission may establish rules or impose requirements deemed necessary to protect the interest of the customers or subscribers of the public utility or class of public utility exempted under this subdivision. These rules or requirements may include, but are not limited to, notification of a proposed sale or transfer of assets or stock and provision for refunds or credits to customers or subscribers.

application "necessarily would result in delay and uncertainty." (SDG&E Opening Comments, p. 20.) Current and Ambient also support exempting BPL transactions from section 851. As Current puts it, "Sec. 851 proceedings can be contentious and time consuming. Such regulatory uncertainty would substantially hinder the development of BPL and would stand in stark contrast to the Commissions efforts to promote competition in communications by providing regulatory certainty through appropriate use of Sec. 853 exemptions." (Current Opening Comments, pp. 23-24.)

TURN, on the other hand, vigorously opposes the proposed exemption from section 851 as being unnecessary, illegal, and inconsistent with the Commission's expressly stated standards for granting section 853(b) exemptions. (TURN Opening Comments, pp. 18-26.)

CCTA also opposes providing an exemption from section 851 solely for BPL projects, arguing that it is discriminatory and inconsistent with federal law and policy by favoring one technology over another, and also that it is simply unnecessary, as compliance with section 851 will not hinder BPL deployment. (CCTA Opening Comments, pp. 2-8.)

Other parties opposing an exemption from the requirements of section 851 include CISPA, Disability Rights Advocates, Greenlining, UCAN, and San Francisco.

SCE, while not opposing an exemption from section 851 for BPL, recommends that the Commission "consider a uniform approach to §851 requirements for all communications providers regardless of the technology on which service is based

." (SCE Opening Brief, p. 6.)

B. Discussion

Public Utilities Code section 851 exists to protect the quality of utility service provided to ratepayers and to protect ratepayers' investment in utility assets. While it serves an important purpose, section 851 application proceedings can sometimes be both contentious and time consuming, and a full review of every transaction is not always necessary to protect the public interest. Here, a lengthy section 851 proceeding would simply be inconsistent with our stated policy goal of not impeding the rapid deployment of BPL technology.

TURN is generally correct that this Commission has in the past only granted exemptions from section 851 pursuant to section 853(b) in extraordinary circumstances. (TURN Opening Comments, p. 19.) That practice was the result of a policy determination by the Commission. The text of section 853(b) contains no such limitation. The current policy of the Commission is to reduce the level of scrutiny for transactions such as those at issue in this proceeding, and neither section 851 nor section 853(b) precludes such a policy. In fact, the existence and language of section 853(b) is consistent with a hands-off policy when the Commission determines that such a policy is in the public interest.[42]

Here, we have determined that the public interest is best served by the speed of deployment of BPL technologies, rather than by a more rigorous but necessarily lengthy review process of individual BPL-related transactions. TURN may also be correct that historically the most lengthy section 851 proceedings are ones which involved contested revenue allocation issues, and we can remove such issues from consideration by adopting revenue allocation rules

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[42] For example, the Commission's General Order 69-C creates an exemption from section 851 for revocable licenses of utility property that meet certain conditions, and does not require the existence of extraordinary circumstances.

in this decision. (TURN Opening Comments, p. 22.)[43] Nevertheless, because individual section 851 proceedings are necessarily fact-specific, we have no way of predicting in advance the issues that may be raised in a particular section 851 proceeding, and accordingly we have no way to predict how lengthy each section 851 proceeding may be.[44] We prefer to eliminate such regulatory uncertainty.

CCTA's claim that the Commission would be improperly discriminating in favor of BPL by allowing BPL an exemption from section 851 is not well founded. The competing technologies are not identical, nor are they provided in identical manners or by identically-situated entities. For example, Comcast did not need to file a section 851 application at this Commission to provide broadband service over cable, nor did Verizon Wireless need to file a section 851 application to provide wireless broadband service.[45] Accordingly, the mere fact of BPL being granted an exemption from section 851 is not discriminatory. In fact, given the head starts of other technologies such as DSL and cable, reducing potential regulatory barriers to the deployment of BPL will actually do more to level the playing field than to tip it.

Despite the vigor with which the parties debated the merits of section 851 versus section 853(b), the record is relatively sparse on how the Commission should best use section 853(b). Contrary to the tenor of some opponents of the use of a section 853(b) exemption from section 851, the mere use of section 853(b)

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[43] California Environmental Qualtiy Act (CEQA) review can also extend the time necessary to process an application. Because of the lack of environmental impacts of the BPL transactions we are approving here, CEQA review is not an issue.

[44] For example, due process considerations may require evidentiary hearings in some cases.

[45] It took SBC a more complex Commission process to obtain its authorization to offer DSL.

does not necessarily mean that utilities are given *carte blanche* to do as they please. Section 853(b) expressly provides that in granting an exemption from section 851 the Commission may prescribe terms and conditions and establish rules or impose requirements on that exemption.

Some parties have expressed concern that use of section 853(b) would effectively result in a circumvention of the requirements of the California Environmental Quality Act (CEQA). In other words, since the Commission would not be reviewing individual transactions, we would also not be considering the environmental impact of those transactions. This Commission acknowledges its legal duty to perform CEQA review, and we are not seeking to avoid preparing CEQA-required environmental documents for BPL transactions. Rather, we believe that the transactions under consideration will not trigger preparation of an environmental document because they will have no significant environmental impact.

To ensure that this is true, we will limit the characteristics of the transactions that are eligible for a section 853(b) exemption from section 851. No BPL transaction entered into as a result of our application of section 853(b) can result in trenching, excavation, boring or drilling, or other digging. BPL equipment may only be installed in or on existing utility structures, and all BPL-related construction and installation must be performed consistently with any and all applicable existing environmental mitigation measures, particularly those measures applicable to the utility infrastructure on which it is constructed or installed.[46]

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[46] These limitations are consistent with the record in this proceeding. According to Current, "BPL deployments simply involve placements of equipment on existing utility infrastructure…BPL involves no trenching

In addition, all discussion in the OIR and pleadings related to leases or other agreements for use of utility-owned infrastructure. Accordingly, no sale of utility assets is permitted under the section 853(b) exemption. Should any utility wish to sell utility assets for BPL purposes, approval for such sales must be sought via a section 851 application.[47]

Because of the unknown nature and prospects of BPL, and the paucity of the record on this issue, we simply do not know what leases or other contracts for use of utility facilities for BPL purposes will look like, although we expect the utilities to use good business judgment and enter into contracts that are reasonable in their terms and duration. We do find that enough is unknown about the potential costs and benefits of BPL that the leases discussed in the context of this section 851 exception shall not be longer than twenty years in duration. Furthermore, any lease related to BPL that extends beyond the year 2031, regardless of lease length shall require additional express exemption of the 851 requirements. In doing so, this Commission hopes a long term lease beyond the initial deployment of BPL will be done consistent with this Commission's obligations under section 851.

C. Process

In the OIR, we discussed the use of an advice letter process for approval of utility leases or other financial arrangements with a BPL company. (OIR, p. 10.) There are, however, some problems with the use of an advice letter. For example, if an advice letter is protested, that may require the issuance of a

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or other activities which might trigger CEQA." (Current Reply Comments, pp. 11-12.)

[47] An exception to this requirement, relating to SDG&E's possible transfer of the benefits of certain shareholder-funded development of BPL to a utility BPL affiliate, is discussed below.

Commission Resolution.[48] A contested advice letter resulting in a Commission Resolution raises a number of the same concerns raised by an application under section 851, such as triggering potentially lengthy revenue allocation and CEQA issues.

The Commission has no interest in further litigation and review of transactions that are consistent with this decision. Accordingly, we are not going to require the filing of an advice letter for approval of utility/BPL contracts, pursuant to the previous paragraphs. We do, however, believe it is important for all interested parties to have notice of the existence of such a contract and its terms. Accordingly, we will require utilities to post on their website, in an easily located place, notice of any lease or other financial arrangement with a BPL company, including the name of that company, the nature of the services to be provided, and the terms of the lease or other contract. The utilities shall notify the Commission's Energy and Telecommunications Divisions of such a contract, and shall provide a link to its location on the web site. The same information, or a link to the utility's web site, shall be available on the Commission's web site under both telecommunications and energy. To provide active, as well as passive, notice, we will create a service list in this proceeding for electronic service of notices of posting of contracts, containing links to the appropriate utility web site.

Should any such lease or other contract not be disclosed, or otherwise be inconsistent with this decision, a complaint may be filed with this Commission, or the Commission may open an Order Instituting Investigation for violation of this decision. Should any utility object to using this process for a particular

[48] Given the number of parties and range of positions in this proceeding, it is quite possible that there may be protests to advice letters seeking approval of utility contracts with BPL providers.

transaction, the utility may submit an application to the Commission under Public Utilities Code section 851.

X. Other Issues

A. Disabled Access

Disability Rights Advocates argues that public rights-of-way need to remain accessible, and the Commission should ensure that BPL deployment does not result in obstruction of rights-of-way. (Disability Rights Advocates Opening Comments, pp. 2-3.) As an example, Disability Rights Advocates cites the digging up of sidewalks. However, the record in this proceeding contains does not support the need for the BPL provider to dig up sidewalks or anywhere else, and as described above, no such digging is authorized by this Decision. Consistent with pre-existing California law and this Commission's decisions, to the extent that the utility or the BPL provider needs to access existing facilities, whether underground (e.g. vaults) or above ground (e.g. poles), the responsible companies must maintain rights of way or alternative paths of travel.

B. Berkshire Hathaway

Greenlining notes the repeal of PUHCA, and speculates that MidAmerican Energy Holding Company, largely owned by Berkshire Hathaway, Inc., may be interested in acquiring California energy utilities. (Greenlining Opening Comments, pp.5-6.) According to Greenlining, in order to allow this possibility, with its potential benefits for BPL resulting from technological convergence and significant investment, the Commission should retain section 851 authority, as leases with BPL providers discourage companies like Berkshire Hathaway from entering the market. (Id., p. 5.)

Even if Greenlining is correct, based on the record before us, the possibility of Berkshire Hathaway becoming a major player in BPL in California is too

speculative to provide the basis for our policy on BPL. If Berkshire Hathaway or another major player does prove to be interested in participating in BPL in California, we can address that eventuality when it happens.

C. Health Effects

CARE's comments focused on the biological effects of radio frequency radiation, and the possible health impacts of BPL. (CARE Opening Comments, pp. 1-8.) CARE claims that there may be adverse health effects from BPL. (Id., pp. 4-8.) CTIA responded, arguing that the issues identified by CARE are subject to exclusive federal regulation by the FCC, and accordingly this Commission's ability to consider such issues is preempted by federal law. (CTIA Reply Comments, pp. 1-2.) In addition, CTIA argued that CARE's claims of adverse health effects are unfounded. (Id., pp. 2-4.)

CTIA appears to be correct that the health effects of radio frequency radiation is an issue generally subject to federal, rather than state jurisdiction.[49] Accordingly, we do not address it here, and we do not reach the substantive issue of whether there are potential health effects from the deployment and use of BPL.

XI. Category and Need for Hearing

The Commission preliminarily categorized this proceeding as quasi-legislative, and preliminarily determined that hearings were not necessary. Based on the record, we affirm that this is a quasi-legislative proceeding, and that hearings are not necessary.

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[49] CARE was provided an opportunity to respond to CTIA's jurisdictional arguments, but was largely unable to do so. (PHC Transcript, p. 25.)

XII. Assignment of Proceeding

Commission President Michael R. Peevey was the Assigned Commissioner for this proceeding, but as of January 19, 2006, Commissioner Rachelle B. Chong became the Assigned Commissioner for this proceeding. ALJ Peter Allen is assigned to this proceeding.

XIII. Comments on Draft Decision

The alternate draft decision of Commissioner Brown in this matter was mailed to the parties in accordance with Pub. Util. Code § 311(g)(1) and Rule 77.7 of the Rules of Practice and Procedure. Comments were filed _____.

1. Findings of Fact

1. BPL systems use electric power lines to carry high-speed data signals to neighborhoods.
2. BPL data transmit at a much higher frequency than electricity, so the BPL signal can occupy the electric wires without interfering with electric transmission.
3. A variety of BPL technologies have developed to address the potential of the power delivery system interfering with the BPL signal.
4. BPL has the potential to provide many benefits, including increased broadband competition, additional access to broadband, and cost savings to electric customers through "smart grid" applications.
5. Technical and economic constraints may initially limit the potential of BPL to serve dispersed populations in rural areas.
6. The FCC October 14, 2004 Report and Order on BPL encouraged "rapid development of all broadband technologies, including BPL."
7. The NARUC BPL Task Force in a February 2005 report encouraged states to tailor appropriate regulatory roadmaps for the implementation of BPL.

8. An Electric Power Research Institute (EPRI) BPL White Paper notes regulatory action or inaction could have a significant impact on the business case of BPL.

9. SDG&E began its pilot program on September 1, 2005.

10. The regulatory framework in this decision is intended to protect ratepayers from risks associated with BPL investment, protect the reliability and safety of the electric system and provide incentives for utilities to encourage BPL development.

11. In a landlord-tenant model for BPL, an energy utility acts as the owner of power lines and a third party provides the BPL service.

12. Under the landlord-tenant model, a utility and a third-party BPL provider negotiate a contractual arrangement in which the BPL provider obtains access to the utility infrastructure.

13. The Commission has chosen to allow regulated affiliates to have unregulated affiliates subject to affiliate transaction rules.

14. The rules adopted by the Commission in OIR 92-08-008, among other commission decisions, are rules governing the reporting of transactions between electric, gas, and telephone utilities and their affiliates.

15. BPL is a communications platform that is dependent upon the use of the electric distribution infrastructure of energy utilities.

16. Ratepayer dollars should not be invested in risky emerging technologies.

17. Shareholders and third parties will not assume the risks of pursuing BPL deployment without some expectation of rewards.

18. Even if utility shareholders are not investing in the BPL system, shareholders could still incur financial risks related to BPL.

19. Insulating ratepayers from financial risk is an essential objective.

20. Providing direct financial benefits to ratepayers is only desirable to the extent that shareholder incentives to pursue BPL are not significantly weakened.

21. SCE proposes applying its existing revenue-sharing mechanism for OOR, with a 90/10 shareholder/ratepayer split for an active service and a 70/30 shareholder/ratepayer split for a passive service.

22. SCE's OOR mechanism (adopted in D.99-09-070) protects ratepayers from financial risk.

23. In D.98-10-058, Appendix A, or ROW Order, the Commission has established rules governing access to public utility rights of way and support structures by telecommunications carriers and cable TV companies.

24. An essential element of the ROW Order is the requirement that a utility not discriminate in its fees for pole attachments.

25. The ROW Order describes the methodology for determining fees for pole attachments.

26. Electrical equipment problems, unrelated to BPL, may be identified in the process of installing a BPL system.

27. The safety and reliability of the electric delivery system is a principal concern of the Commission.

28. BPL poses unique safety issues since it is attached directly to energized electric wires.

29. Utilities must determine whether BPL equipment can be installed on their system and the manner in which it will be installed and operated.

30. Pub. Util. Code § 851 protects the quality of utility service provided to ratepayers and protects ratepayers' investment in utility assets.

31. A lengthy § 851 proceeding would simply be inconsistent with our stated policy goal of not impeding in the rapid deployment of BPL technology.

32. The plain language of § 853(b) does not limit its application to extraordinary circumstances.

33. The Commission has granted a number of § 853(b) exemptions without any finding of extraordinary circumstances. In the following cases the granting of an § 853(b) exemption results from a policy determination from this Commission: D.05-07-039, D.05-06-016, D.04-03-020, D.02-10-008, D.05-10-013, D.02-01-055, and D.04-07-021.

34. The public interest is best served by the speed of deployment of BPL technologies, rather than by a lengthy review process of individual BPL-related transactions

35. CEQA guidelines 15301 grants a categorical exemption for the minor alteration of and additions to existing facilities of utilities and additions to exiting structures, the exact situation that we will have as California deploys broadband over power lines.

36. If appropriate alternatives are present, there is no need to require filing of an advice letter for approval of utility/BPL contracts.

37. The FCC authorizes and licenses transmitters and facilities that generate radio frequency radiation and has addressed the potential biological effects of radiofrequency electromagnetic fields.

Conclusions of Law

1. We should not preclude direct utility provision of BPL, but such service should be approved under existing Commission procedures.

2. It is reasonable to allow BPL services to be provided by independent third parties under landlord-tenant contractual arrangements with electric utilities.

3. It is reasonable to allow BPL services to be provided by affiliates of electric utilities.

4. The affiliate reporting requirements adopted by the Commission in its Energy Affiliate Rules should be applied to transactions between an electric utility and BPL affiliate.

5. The direct provision of BPL services by a regulated electric utility is not governed by this decision and would be subject to existing Commission procedures.

6. Transactions between an electric utility and BPL affiliate should be subject to the Commission's existing Energy Affiliate Transaction Rules (D. 97-12-088 and D. 98-08-035).

7. Ratepayer funds should not be used to research, develop or operate a BPL system.

8. BPL expenditures should be financed only with shareholder or third-party funds, and all financial risks and reasonable rewards from BPL projects should accrue to the shareholders or third-party investors.

9. It is reasonable to allow a utility and BPL company to agree to appropriate terms for access to utility infrastructure in a manner that gives utility shareholders an incentive to enter into such negotiations.

10. A revenue-sharing mechanism for allocation of revenues received by a utility from a BPL provider should protect ratepayers from financial risk, align shareholder risks and rewards, and provide direct financial benefits to ratepayers.

11. It is reasonable to apply the existing revenue-sharing mechanism for OOR as adopted in D.99-09-070 with the understanding that the BPL investments are to be considered "passive".

12. The existing revenue-sharing mechanism for OOR should be adopted for all electric utilities for the treatment of any access fees that the utilities received in the context of BPL deployment.

13. A utility should not be permitted to discriminate or cross subsidize in its fees for pole attachments by BPL providers.

14. The Commission should at this time adopt rules requiring entities that acquire BPL rights on a utility system to begin implementing BPL service within five years.

15. Pursuant to Pub. Util. Code § 853(b), it is reasonable to exempt BPL projects and transactions from Pub. Util. Code § 851, so long as those projects do not exceed twenty years or the year 2031.

16. As a result of the use of 853(b) exemption, this Commission will not be reviewing individual BPL transactions and therefore the Commission's requirement of a CEQA review is not triggered

17. CEQA guideline 15301 grants a categorical exemption to those limited BPL transactions where equipment is installed in or on existing utility structures as long as all the BPL-related construction and installation is performed consistently with any and all applicable existing environmental mitigation measures, particularly those measures applicable to the utility infrastructure on which it is constructed or installed.

18. Under Pub. Util. Code § 853(b), it is lawful for the Commission to subject BPL projects to specific conditions, even when exempted from Pub. Util. Code § 851.

19. It is reasonable to require a CEQA review of those BPL projects and transactions if and when such projects result in trenching, excavation, boring or drilling, or other digging.

20. No sale of utility assets with respect to a BPL transaction should be permitted under this § 853(b) exception.

21. Since it is important for this Commission to have notice of the existence of a BPL contract and its general terms, we will require utilities to provide the

Telecommunications Division Director and Energy Division Director, notice of any lease or other financial arrangement with a BPL company, including the name of that company, the nature of the services to be provided, and date entered.

22. To the extent that a utility or BPL provider needs to access existing facilities, the responsible companies should be required to maintain rights of way or alternative paths of travel that are accessible for people with disabilities.

O R D E R

IT IS ORDERED that:

1. It is the policy of this Commission to encourage development and competition in the broadband market by providing regulatory certainty to California companies seeking to provide broadband over power lines (BPL).

2. Regulated California energy utilities are authorized to enter into contracts through which BPL service may be provided by independent third parties using energy utility infrastructure.

3. Affiliates of regulated California energy utilities are authorized to provide BPL service using energy utility infrastructure and shall at all times be subject to the Commission's affiliate reporting requirements.

4. The direct provision of BPL by a regulated utility, as a tariffed or non-tariffed service is not governed by this decision. Should a regulated energy utility wish to provide BPL service on a tariffed or non-tariffed basis it should seek Commission approval to do so under existing Commission procedure.

5. Regulated utilities in California are precluded from using ratepayer funds to research, develop or operate a BPL system unless the expenditures can be justified solely on the basis of utility benefits.

6. Fees received by a regulated utility from BPL providers (other than the standard pole attachment fees that flow through to ratepayers) are to be allocated under the revenue-sharing mechanism for other operating revenues (OOR) as adopted in Decision (D.) 99-09-070 and will be categorized as "passive".

7. In installing a BPL system in connection with a regulated utility, costs directly related to the repair and maintenance of existing electrical equipment for the purposes of electric service reliability shall be allocated to electricity operations, while costs directly related to BPL installation or operation shall be allocated to the BPL operator.

8. Regulated electric utilities involved with BPL services are directed to continue to comply with the rules, requirements and standards promulgated by the Commission's General Order (GO) No. 95, which applies to the construction of overhead lines, and GO 128, which applies to the construction of underground electric supply and communication systems. If in the course of implementing BPL projects, utilities identify a need to revise applicable Commission rules or General Orders, the utilities are encouraged to request appropriate relief from the Commission, and the Commission will address the request expeditiously. Utilities shall ensure that their compliance with the Commission's GO 95 and GO 128 and their setting and application of

additional safeguards and conditions is performed in a competitively neutral manner with respect to other communications and information providers who seek similar access.

9. Pursuant to Pub. Util. Code § 853(b), we exempt from the requirements of Pub. Util. Code § 851 all BPL transactions. However, no sale of utility assets is permitted under this Section 853(b) exemption. BPL equipment subject to this exemption may only be installed in or on existing utility structures, and all BPL-related construction and installation must be performed consistently with any and all applicable existing environmental mitigation measures, particularly those measures applicable to the utility infrastructure on which the BPL is constructed or installed. Leases for the provision of BPL shall not exceed twenty years in length or extend beyond the year 2031 without § 851 review.

10. Pursuant to Pub. Util.Code § 853(b), we impose a condition on those transactions that result in trenching, excavation, boring or drilling, or other digging. Such transactions, albeit still exempt from § 851 reviews, must undergo a CEQA review and obtain approval from this Commission.

11. Utilities shall provide the Telecommunications Division Director and Energy Division Director notice of any lease or other financial arrangement with a BPL company, including the name of that company, the nature of the services to be provided, and date entered.

12. To the extent that a regulated utility or BPL provider needs to access existing facilities, whether underground or above ground, the responsible

companies are directed to maintain rights of way or alternative paths of travel that are accessible for people with disabilities.

This order is effective today.

Dated _____, 2006, at San Francisco, California.

ATTACHMENT: Digest for Brown Alternate Draft Decision on BPL