

**STATE OF MAINE PUBLIC UTILITIES COMMISSION**

**DOCKET NO. 2008-255**

**CENTRAL MAINE POWER COMPANY  
Request for Certificate of Public Convenience  
and Necessity for the Maine Power Reliability Program  
Consisting of the Construction of Approximately  
350 miles of 345 kV and 115 kV Transmission Lines ("MPRP")**



**Central Maine Power**  
*Your Electricity Delivery Company*

**VOLUME I**

**REBUTTAL TESTIMONY**

**Of**

**PAUL A. DUMAIS**

**AND**

**ERIC N. STINNEFORD**

**BENEFITS OF THE  
MAINE POWER RELIABILITY PROGRAM**

**December 4, 2009**

**Attorneys for Central Maine Power Company**

**Jared S. des Rosiers**

**Thomas L. Welch**

**PIERCE ATWOOD LLP**

**One Monument Square**

**Portland, ME 04101**

**REBUTTAL TESTIMONY OF  
PAUL A. DUMAIS AND ERIC N. STINNEFORD**

**Benefits of MPRP  
Docket No. 2008-255**

1           This rebuttal testimony is offered by Eric Stinneford and Paul Dumais. Please *see*  
2 Attachment ENS/PAD-1 to our updated testimony dated March 9, 2009 in this proceeding for  
3 our credentials.

4           The purpose of this testimony is to present a cost benefit analysis justifying the  
5 Commission's granting CMP a Certificate of Convenience and Necessity ("CPCN") for the  
6 Maine Power Reliability Program ("MPRP"), as proposed by CMP in its petition filed on July 1,  
7 2008, over 17 months ago, as compared to the alternative transmission "scenarios" proposed by  
8 the Commission Staff in the Bench Analysis dated October 26, 2009 (hereinafter the "Bench  
9 Analysis" or "BA"). This testimony also summarizes CMP's entire rebuttal case filed today,  
10 which responds to issues raised in the Bench Analysis and the intervenor testimony filed in this  
11 case.

12 **I.       The Cost/Benefit Case for MPRP as Compared to the Staff "Scenarios"**

13           The need for reinforcing Maine's transmission system is real and immediate, as Staff  
14 concedes in the Bench Analysis. (BA at 2, 5-6.) MPRP is essential for CMP's customers to  
15 continue to have a reliable transmission system. If MPRP is not built soon, CMP's and Bangor  
16 Hydro's customers will suffer degradation in the reliability of their electric service, with the  
17 potential risk of cascading outages to the New England region. Although the Bench Analysis  
18 and intervenor testimony have raised concerns with the impacts of the current economic  
19 recession on the immediate need for MPRP, the lower forecasted peak loads during the planning

1 period do not alter the fact that MPRP is needed for Maine customers, nor do those forecasts  
2 provide a basis for delay. As demonstrated in the rebuttal testimony of CMP's transmission  
3 planning experts, David Conroy and Rick Conant ("Planning Rebuttal"), MPRP is needed at the  
4 reduced peak load levels currently anticipated to occur within the planning period. As shown in  
5 the rebuttal testimony of John Davulis and Paul Dumais ("Peak Load Rebuttal"), CMP expects  
6 its peak load to reach 2000 MW by 2020.

7 Building MPRP now is the best solution for Maine because it will provide both a  
8 necessary, reliable bulk power system and provide an economic stimulus to Maine at a time  
9 when that stimulus is desperately needed. As discussed in the Planning Rebuttal, the minimalist  
10 approach put forth by Staff is seriously inadequate to address the identified reliability needs, and,  
11 as described in the rebuttal testimony of Mary Smith and William Allard ("Project Management  
12 Rebuttal"), risks introducing substantial delays to a point well beyond 2010 in the  
13 commencement and completion of the project. These delays and the lost efficiencies related  
14 thereto would increase project costs. Most importantly, Staff's scenarios also risk the loss of all  
15 or some of the support to Maine customers from the rest of New England found to be appropriate  
16 for MPRP through the ISO-NE transmission cost allocation process – and, as the Staff has  
17 conceded, it is the interests of Maine's customers that should be paramount in the Commission's  
18 consideration.

19 In fact, adopting the Staff scenarios rather than granting a CPCN for all of MPRP would  
20 represent an extraordinarily skewed assessment of the benefits and risks afforded by each  
21 proposed solution. Those benefits and risks, described in detail in the petition and rebuttal  
22 testimony submitted by CMP and ISO-NE in this case, are summarized in Table 1 below:

TABLE 1

<b>COST, BENEFIT OR RISK</b>	<b>MPRP AS PROPOSED</b>	<b>STAFF SCENARIO 2</b>
Capital cost (approximate)	\$1,550,000,000	\$800,000,000
Annual Total Cost to Maine customers in rates net of LNS reduction and line loss savings <sup>1</sup>	\$2,000,000 <sup>2</sup>	1,000,000; substantially more if not all costs of Staff scenario 2 are socialized <sup>3</sup>
Cost to Maine customers per kWh	\$0.001 <sup>4</sup>	\$0.0005; substantially more if not all costs of Staff scenario 2 are socialized
Monthly cost to average Maine residential customer	\$0.60	\$0.30; substantially more if not all costs of Staff scenario 2 are socialized
Value to Maine economy	Over four year construction period, \$242 million in wages and salaries, increase in GDP of \$289 million; 1,550 direct and 580 indirect jobs <sup>5</sup>	Proportionately less, and later in time
Longevity	Will ensure reliable and compliant bulk transmission system in Maine at least through the end of the 2020s	Will require upgrades and rebuilds even within current planning horizon (through 2020)
Start of construction and jobs in Maine	2010 if CPCN is granted by second quarter 2010	Likely 2012 at the earliest, due to need to revisit PPAs, TCA approval at ISO, DEP studies and application, and real estate procurement issues

<sup>1</sup> See Updated Testimony of Eric N. Stinneford and Paul A. Dumais, March 9, 2009 ("March 9 Testimony"), Attachment ENS/PAD-3 at pp. 3-4 of 9.

<sup>2</sup> This figure excludes approximately \$2.0 million per year in property taxes that would be paid by Maine customers. Because property taxes, like other MPRP costs, are socialized, the rest of New England will contribute approximately \$23.0 million to Maine communities.

<sup>3</sup> The line loss savings and O&M reallocation effects are not proportional and move in opposite directions, with the O&M reallocation savings slightly higher proportionally and line loss savings lower due to the failure of the Staff scenarios to include the southern portions of MPRP. In its response to CMP-08-11, Staff calculates the cost difference between Scenario 1 and MPRP at about \$10 million per year. This figure, however, appears to ignore the substantial line loss savings that result from MPRP and do not result from the Staff scenarios.

<sup>4</sup> In our March 9 Testimony, we estimated the impact on delivery rates of MPRP at \$0.002 to \$0.003 per kWh, or about \$1.00 to \$1.50 per month. When the impact of the socialization of a significant portion (about \$7 million per year) of O&M costs now recovered in local Maine rates is taken into account, however, the cost to Maine customers falls to below \$.001 per kWh.

<sup>5</sup> March 9 Testimony at pp. 1-2 of 9.

<b>COST, BENEFIT OR RISK</b>	<b>MPRP AS PROPOSED</b>	<b>STAFF SCENARIO 2</b>
Reliability	Fully compliant with FERC, NERC, NPCC and ISO-NE standards	Non-compliant with FERC, NERC, NPCC and ISO-NE standards; does not resolve all violations identified in regional planning process <sup>6</sup> ; does not even resolve all the violations found using the inadequate Staff testing methods; allows higher risk of system failure; exposes Maine customers to higher risk of substantial costs of system disruptions
Increased transfer limits to encourage wind development in Maine	Increase of up to about 1,000 MW of additional transfer capability from Maine to New Hampshire <sup>7</sup>	No additional transfer capability from Maine to the rest of New England
Access of wind resources to the major elements of the transmission grid	Provides path for wind generation in western Maine to reach the 345 kV system and includes autotransformers at key locations for wind integration	Provides no path west of Lewiston that would assist wind development and defers installation of autotransformers at key locations pending non-specific "triggers"
Dependence on older fossil units in Maine	Ends dependence on W.F. Wyman units for reliability	Continues and increases reliance on W.F. Wyman units for reliability; would likely require RMR, the costs of which would be paid entirely by Maine customers
Lower energy prices throughout New England and in Maine	On a net present value basis, about \$1.7 billion savings in energy costs for New England <sup>8</sup>	Unknown, but substantially less than MPRP because lack of additional transfer capability will discourage the addition of low cost resources in Maine

<sup>6</sup> See Planning Rebuttal and attachments thereto.

<sup>7</sup> In its response to CMP-08-13, Staff suggests that "there is no ... analysis specific to the portions of the MPRP that appear to be in excess of basic reliability needs." As shown clearly in the testimony of Mr. Tilghman on behalf of CLF, however, the southern portion of the MPRP project (*i.e.* the line from South Gorham to Three Rivers), which is essential to increasing the transfer capability from Maine to southern New England, provides substantial benefits to wind development in Maine. That portion of MPRP is excluded from Staff scenarios and thus is presumably, in Staff's view, "in excess of basic reliability needs." Staff's response to CMP-08-100 similarly indicates that Staff has "not been convinced" that MPRP provides more support for renewable development than Staff scenario 2. This position is, to say the least, surprising in light of the testimony sponsored by CLF that provides extensive evidence of precisely that fact.

<sup>8</sup> MPRP CPCN Petition, Exhibit I-3 at p. 138 of 464.



1 Put in simple terms, failing to grant the CPCN for the full MPRP project as requested by  
2 CMP will put at risk regional funding for the immediate investment of well over a billion dollars  
3 in Maine’s infrastructure, at a time when Maine people are rightfully clamoring for opportunities  
4 to go back to work. The difference in cost to the average residential customer in Maine between  
5 the immediately available, shovel-ready, ISO-NE approved and federal standard-compliant  
6 MPRP, and the less reliable, unapproved, shorter lived, truncated project proposed in the Bench  
7 Analysis, amounts to less than \$5.00 dollars per year – and, if the benefits to Maine communities  
8 of the regional payment of the property taxes associated with the project are taken into account –  
9 Maine people are literally worse off financially under the putatively “less expensive” Staff  
10 scenario. In addition, any conclusion that the Staff scenario is even nominally less expensive for  
11 Maine ignores the substantial risk that the Staff approach – either because all or some of it will  
12 not be given regional rate treatment, or because it depends upon keeping aging fossil units such  
13 as the W. F. Wyman plant in service through Maine-paid “reliability” contracts – will actually  
14 require Maine customers to pay more, and perhaps much more, for a vastly inferior transmission  
15 system.

16 **II. CMP’s Rebuttal Case**

17 **A. MPRP was developed in a transparent FERC-approved regional process;**  
18 **there is no reason for the Commission to seek to substitute its judgment**  
19 **concerning the proper application of transmission reliability standards.**

20 ISO-NE has been given responsibility by the Federal Energy Regulatory Commission  
21 (“FERC”) for regional transmission planning and for serving as the regional Reliability  
22 Coordinator and Planning Authority. In this role, ISO-NE determines, through an open and  
23 comprehensive stakeholder process – in which the Maine Commission and myriad other parties  
24 participated with respect to MPRP – the need for transmission projects. Through that process,  
25 ISO-NE determined that there are significant regional reliability needs in Maine and the MPRP

1 satisfies these regional reliability needs. As a result of this determination, ISO-NE has, in  
2 accordance with its tariff, determined that the costs to build this reliability upgrade will be shared  
3 among all transmission customers throughout New England.

4 The Planning Rebuttal provides a thorough discussion of why, as a matter of sound  
5 planning practice, the results of that regional planning process should be used by the  
6 Commission in its CPCN determination, and of why the more lax testing approach proffered by  
7 the Staff should be rejected. In addition, CMP has submitted the rebuttal testimony of George  
8 Loehr (“Transmission Planning Overview”). Mr. Loehr is the former Executive Director of the  
9 NPCC, current Chair and an elected, Unaffiliated Member of the Executive Committee of the  
10 New York State Reliability Council and has long been active in planning issues throughout the  
11 United States. In his rebuttal testimony, Mr. Loehr confirms that the MPRP analysis is entirely  
12 “mainstream” and relies on sound planning practices. The Transmission Planning Overview also  
13 points to several egregious errors in the Bench Analysis concerning the practices of other  
14 regions.

15 Contrary to the implication in the Bench Analysis, the primary role of ISO-NE in  
16 determining the regional transmission needs does not usurp the Commission’s statutory authority  
17 over transmission. The MPUC continues to have a role in determining the need for local  
18 transmission projects, *i.e.* those not included in the higher voltage power system and not subject  
19 to the ISO-NE’s reliability determination. The MPUC also has the role of approval of siting and  
20 assuring that the transmission owner has adequately addressed local issues in the design, siting  
21 and construction of all transmission projects, including those that result from the regional  
22 transmission planning process. For regional reliability planning to make sense, and in particular  
23 to support a decision by the rest of the region – through ISO-NE – to pay for a project as a region

1 rather than as an individual utility or state, the results of the regional FERC-approved planning  
2 process should be respected. To do otherwise, as the Bench Analysis suggests, at best introduces  
3 the likelihood of significant delay and, at worst, the significant risk identified in the rebuttal  
4 testimony of the ISO, that the alternative solutions will be determined to inadequately resolve the  
5 regionally identified reliability needs and result in the loss of regional cost sharing for the project  
6 under the ISO Tariff. Adoption of the Staff scenarios, premised on planning assumptions  
7 inconsistent with those adopted in the FERC mandated and approved regional planning process,  
8 also raises the specter of federal pre-emption.<sup>12</sup>

9 In any case, the Commission need not, in determining the scope of the CPCN to be  
10 granted, decide expressly whether it considers its determination of need under Maine law bound  
11 by the reliability determinations of the regional planning process. As the Staff has recognized,  
12 the Commission may, within its authority, consider benefits and the advancement of Maine  
13 policies in addition to the “minimum necessary” increases in transmission reliability in  
14 determining the appropriate scope of the CPCN. (*See, e.g.*, CMP-08-13; Nov. 17 Tr. at 32:22-  
15 33:2.) So long as the project *actually* meets regional reliability requirements, it does not matter,  
16 for purposes of preserving the ISO approvals already given to MPRP, whether the Commission’s  
17 *reasons* for approving the project are identical to those of ISO-NE or CMP. As illustrated above,  
18 additional benefits from MPRP clearly outweigh the minimal additional costs to Maine  
19 customers as compared to the Bench Analysis proposal.

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<sup>12</sup> Without limitation, Staff’s alternative planning assumptions and alternative transmission “scenarios” constitute a direct rejection of mandatory NERC standards, *e.g.* R1.3.5 (TPL-001 to 003) and R. 1.3.4 (TPL-004) and a direct rejection of MPRP implementing assumptions established in, and thus collaterally attacks, the FERC approved planning process set forth in Attachment K of ISO-NE’s Open Access Transmission Tariff (“OATT”), contrary to 16 U.S.C. §§ 824, 824d(c), (d) and (e), 824(e) and 824o(i)(3); FERC Order 890; the filed rate doctrine; NERC Standard R1.3.2 (TPL-002 to -004), Attachment N of the OATT and the ISO Transmission Operating Agreement. By the submittal of its rebuttal testimony explaining why the assumptions adopted under the Attachment K process were appropriate, CMP does not waive any of its legal, federal and civil rights to enforce the assumptions and results of that process.

1           **B.     MPRP will bring substantial economic benefits to Maine**

2           There are significant short-term stimulus and longer term economic benefits for Maine  
3 that would flow from building MPRP. Building MPRP now will enhance the near and long term  
4 Maine economy and provide a basis for economic growth by ensuring a high level of electric  
5 reliability. As described in our March 9 Testimony, CMP engaged Dr. Charles S. Colgan to  
6 determine the economic impact on Maine during construction of MPRP. Mr. Colgan's report  
7 shows that over the four year construction period, MPRP will result in \$242 million in wages and  
8 salaries, will increase gross domestic product in Maine by approximately \$289 million<sup>13</sup>, and  
9 will provide \$18 million in incremental tax revenues to State government from sales and  
10 personal income taxes. On average, the MPRP will result in 1,550 direct construction jobs and  
11 580 indirect jobs. These economic benefits would come at a time when Maine is experiencing  
12 an economic slowdown and has experienced significant job losses. In the long run, having a  
13 reliable bulk power system will result in economic benefits to Maine and CMP's customers by  
14 providing the infrastructure for economic growth and by avoiding the substantial costs that  
15 customers incur as a result of wide spread power outages.

16           **C.     MPRP will support Maine's goal to increase renewable generation**

17           MPRP is a key component of Maine's energy future as articulated by the Legislature and  
18 the Commission as, in addition to the needed reliability benefits, MPRP enables renewable  
19 generation – namely, wind – to be interconnected to the bulk transmission system and exported  
20 to market.<sup>14</sup> By enabling this development, MPRP will help Maine to meet its renewable  
21 portfolio standards and wind generation objectives and thereby reduce its dependence on fossil

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<sup>13</sup> The GDP for Maine in 2008 was approximately \$40 billion. See  
[http://www.bea.gov/newsreleases/regional/gdp\\_state/2009/xls/gsp0609.xls](http://www.bea.gov/newsreleases/regional/gdp_state/2009/xls/gsp0609.xls)

<sup>14</sup> See, e.g., the testimony of Henry Tilghman on behalf of the Conservation Law Foundation, filed November 3, 2009.

1 fuels. In fact, MPRP was assumed in service in the system impact and interconnection studies  
2 for the wind development now in the ISO queue. Similarly, the robustness of the MPRP will  
3 provide the opportunity for these new renewable resources to displace aging and inefficient fossil  
4 fueled generators in Maine. By contrast, the alternative minimalist transmission solutions  
5 proposed in the Bench Analysis are predicated on a continued reliance on these environmentally  
6 unfriendly resources.

7 The importance of additional transmission in Maine to support Maine’s renewable energy  
8 goals was highlighted in the recent draft report of the Ocean Energy Task Force (“OETF”). In  
9 the Draft Recommendations of Subcommittee #3 (Transmission and Grid Related Issues), dated  
10 October 26, 2009, the OETF articulated a need for the “additional transmission infrastructure  
11 needed to transport additional onshore and offshore wind energy to market.” See § 1.a of the  
12 draft report, provided as Exhibit 1 to this testimony.

13 **D. Following the approach of the Bench Analysis risks substantial delay and**  
14 **higher costs for Maine customers**

15 As described in the Planning Rebuttal, the scenarios put forth in the Bench Analysis are  
16 inadequate to address the reliability issues found in the regional planning process. Wholly aside  
17 from whether the approach to planning implied in the Bench Analysis could be found to comply  
18 with federal standards – and, as the Planning Rebuttal shows, it could not – the fact is that the  
19 MPRP *has* been approved as compliant through the regional planning and transmission cost  
20 allocation processes described in the ISO-NE Tariff and through NERC audits for both CMP and  
21 ISO-NE. If the Commission adopts one of the Staff scenarios, CMP would need to reprocess the  
22 alternative transmission solution through the regional planning and approval process. This  
23 reprocessing would necessarily result in a delay in the commencement of the project. More  
24 importantly, there is significant risk that either of the Bench Analysis scenarios would be found

1 not to meet reliability requirements as defined by the region, and therefore the costs of some or  
2 all of those alternatives would have to be borne locally and not regionally. For example, the  
3 Bench Analysis scenarios do not enhance the currently limiting regional transfer limits, thus  
4 reducing the benefits to the rest of New England from MPRP. Simply put, there is a very real  
5 risk that the Staff scenarios would not be determined to be “Regional Reliability Upgrades”  
6 under the terms of the ISO-NE tariff and therefore not subject to regional cost sharing.

7 In addition, the Staff’s scenarios are also significantly different from the MPRP as put  
8 forth by CMP in its environmental permit applications to the Maine Department of  
9 Environmental Protection (“MDEP”) and the Army Corps of Engineers (“ACOE”). Should the  
10 Commission adopt one of these scenarios, CMP would be required to reapply to MDEP and the  
11 ACOE for environmental permits. As described in the Project Management Rebuttal, such a  
12 refiling requirement would introduce an additional and significant delay in project construction.

13 In the Project Management Rebuttal, CMP presents its current MPRP construction plan  
14 and compares it to a plan that would result from the Commission selecting a Staff scenario.  
15 CMP’s MPRP plan results in a completed project by mid-2015. The plan for the Staff scenarios  
16 would result in construction commencement being delayed by likely two years and completion  
17 delayed by at least the same amount of time. The result is a transmission project that does not  
18 meet reliability requirements coming into service until 2016 or later, many years after enhanced  
19 reliability is needed even under the Staff’s inadequate testing. CMP’s MPRP construction team  
20 is ready to go, which will result in a needed reliability project being built efficiently and timely.

21 **E. The cost to Maine customers to bring the benefits afforded by MPRP is**  
22 **minimal; the “solution” offered in the Bench Analysis may not be nominally**  
23 **cheaper for Maine customers and provides far fewer benefits**

24 As we described in our March 9 Testimony, CMP can build MPRP at minimal cost to  
25 Maine electric customers, because it is a regional reliability project and only 8% of the costs are

1 allocable to Maine. In fact, due to the impact of the new investment in MPRP on costs now  
2 recovered through the local rates for Maine, and the reduction in energy prices through lower  
3 line losses, the average annual cost of MPRP in its entirety is *less than \$2 million per year*.<sup>15</sup>  
4 Moreover, MPRP provides positive financial benefits to Maine citizens in the form of added  
5 property tax revenues, amounting to an average of \$20 million per year for the first 15 years of  
6 project life, that are recovered through the regional transmission rate. Finally, MPRP also  
7 provides benefits to all of New England in excess of total project costs, as shown in the rebuttal  
8 testimony of LaCapra, due to the ability of the Maine system, after MPRP is in place, to support  
9 the additional low cost generation that will lower prices throughout New England. MPRP is a  
10 win-win project. It enhances reliability for Maine's electric customers and reduces costs for  
11 most of Maine's citizens and for all of New England.

12 Staff argues that their proposed alternative scenarios result in a project with a lower net  
13 present value cost than MPRP. (BA at 5-6.) There are three major flaws with this analysis: first,  
14 Staff's assumed cost escalation rate is significantly below recent transmission cost inflation;  
15 second, there are a number of efficiencies lost under Staff's construction methodology, and they  
16 have ignored a number of additional costs that adopting their scenarios would create; and last,  
17 Staff completely ignores the real cost of a transmission network with degraded reliability. These  
18 shortcomings are material enough that it is not accurate to conclude that their proposal has a  
19 lower net present value cost.

20 The first major flaw in the Staff's analysis is their use of a 5% annual escalation rate.  
21 Recent transmission costs escalation has been well over their assumed rate. For example, the  
22 Handy-Whitman Index for transmission costs shows an 6.1% annual increase in costs over the

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<sup>15</sup> If the rate impacts of property taxes are included, the impact is about \$4.5 million per year; however, because property taxes relating to MPRP are also socialized, the net impact for Maine relating to property taxes is overwhelmingly positive.

1 last five years.<sup>16</sup> Because the Staff scenarios significantly shift construction into the future,  
2 using a more reasonable escalation rate will significantly increase the costs of the Staff scenarios.

3 The second major flaw in the Staff scenarios is that it does not adequately capture the  
4 cost of dividing the project up into pieces. A phased construction will forfeit many of the  
5 efficiencies achieved through MPRP. Instead of one consistent flow of work, the Staff approach  
6 will involve multiple mobilizations and demobilizations of labor and equipment, the transfer of  
7 crews and equipment over greater distances and the shutdown of crews without scheduling the  
8 next job. In addition, phased construction will increase planning and management costs.  
9 Ignoring the real cost of these lost efficiencies results in a project cost that is artificially low.  
10 Moreover, as shown in the rebuttal testimony of Mr. Steve Walker (“Design Rebuttal”) and the  
11 Project Management Rebuttal, the Bench Analysis fails to include significant additional delays  
12 and costs necessary to address real estate, environmental and design requirements relating to  
13 those scenarios.

14 The third major flaw in the Staff scenarios derives from two key differences between the  
15 Staff scenarios and MPRP. First, Staff’s approach was developed using planning criteria that  
16 subject the system to significantly less stress. Second, the timing of in-service dates is later in  
17 time than CMP’s proposed project. These differences result, as Staff concedes, in the Staff’s  
18 scenarios providing a less reliable transmission system with a higher probability of outages than  
19 MPRP. (Nov. 17 Tr. at 122:22-123:8.) Thus, adoption of either of the Staff scenarios would  
20 leave Maine at significantly greater risk of system outages on the bulk power system as  
21 compared to MPRP. This is inescapable because although the investments that are contemplated  
22 under the two projects meet each of their own assumed future system stresses, they will in reality  
23 face the exact same future of actual system demands, events and disturbances. CMP’s project

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<sup>16</sup> Handy-Whitman, North Atlantic Region, July 2009 Update.

1 investments are more significant and sooner, and, as a result, will have a lower probability of  
2 outages. Staff's net present value calculation of the costs of its scenarios as compared to MPRP,  
3 however, ignores entirely the costs associated with the higher probability of outage, which from  
4 the experience in the 2003 blackout can be significant.<sup>17</sup> Although a precise quantification of  
5 these incremental outage costs would be challenging, to completely ignore them when  
6 comparing the two projects is inappropriate and skews any resulting conclusions.

7 **F. The GridSolar "alternative" is unproven, untested, and far more expensive**  
8 **for Maine customers**

9 As shown in the rebuttal testimony of LaCapra ("LaCapra Rebuttal") and the rebuttal  
10 testimony of Brian Conroy on issues relating to the interconnection of GridSolar ("GridSolar  
11 Interconnection Rebuttal"), the suggestion by GridSolar that Maine can do without substantial  
12 additional transmission and substitute, on an unprecedented scale, some combination of solar and  
13 fossil "backup" generation, together with a "smarter grid," cannot withstand even cursory  
14 scrutiny. GridSolar systematically underestimated the costs of its own proposal, implied with no  
15 support whatever that it could obtain the same regional rate treatment already approved for  
16 MPRP, and demonstrated throughout this proceeding little understanding of the costs and  
17 complexities of interconnecting with and supporting CMP's transmission and distribution  
18 systems. The Commission should not be deflected from more serious issues in this case by this  
19 bald effort to extract funding from CMP's customers for a speculative project.

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<sup>17</sup> For analysis of the costs of the 2003 blackout see, e.g., Kristina Hamachi LaCommare and Joseph H. Eto, *Understanding the Cost of Power Interruptions to U.S. Electricity Consumers*, Lawrence Berkeley National Laboratory, 2004, available at <http://certs.lbl.gov/pdf/55718.pdf> (pdf); *Final Report on the Implementation of the Task Force Recommendations*, US-Canada Power System Outage Task Force, Sept. 2006, available at <http://www.ferc.gov/industries/electric/indus-act/blackout/09-06-final-report.pdf> (pdf).

1           **G.     CMP properly evaluated, and properly rejected, NTAs as a substitute for**  
2           **MPRP**

3           In its initial filing, CMP submitted a comprehensive and exhaustive examination of the  
4           opportunity to displace some or all of MPRP using non-transmission alternatives (“NTAs”),  
5           including energy efficiency, demand response, and generation.<sup>18</sup> That assessment, recognized by  
6           the Bench Analysis as “a credible analysis,”<sup>19</sup> showed that, with the exception of the South  
7           Portland Loop, NTAs were more costly to Maine customers than MPRP. For the South Portland  
8           Loop, CMP concluded that NTAs might provide an adequate substitute, and thus removed the  
9           transmission elements relating to that area from its CPCN Petition. The OPA criticizes the NTA  
10          analysis. As shown in the LaCapra Rebuttal, however, none of the challenges to the MPRP NTA  
11          analysis can withstand scrutiny, and the record remains clear that MPRP provides the greatest  
12          benefits to Maine at the lowest cost.

13          **H.     CMP has appropriately considered the interests of abutting landowners**

14          As described in the Project Management Rebuttal, CMP has carefully considered the  
15          interests of abutting land owners and has made numerous changes in design to accommodate  
16          local needs. CMP has negotiated an arrangement with the City of Lewiston to change the design  
17          of a 345 kV transmission line, and the City of Lewiston will fund such changes through tax  
18          increment financing. CMP continues to work with the Yarmouth intervenors and Mr. and  
19          Mrs. Fournier to address their concerns. CMP has made alterations in the design to address  
20          visual concerns and limit EMF, as discussed in the Design Rebuttal and the rebuttal testimony of  
21          Dr. William Bailey.

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<sup>18</sup> MPRP CPCN Petition Exhibit I-3.

<sup>19</sup> Bench Analysis at 42.

1           **I.       CMP has explored opportunities for demand response with its large**  
2           **customers but has not identified likely possibilities to reduce the need for**  
3           **MPRP**

4           Lastly, CMP has held discussions with its largest transmission level industrial customers  
5 regarding demand response for addressing transmission contingencies. Many of these customers  
6 already participate in ISO-NE demand response programs for resource adequacy (capacity);  
7 however, the demand response required to respond to transmission contingencies is very  
8 different from the activation requirements for capacity resource qualification. In these meetings,  
9 CMP determined that these customers currently do not have the ability to significantly reduce  
10 their interconnection demand within the timeframe needed for transmission contingency  
11 response. Based on these initial discussions, CMP is doubtful that these customers can provide  
12 the type and timing of demand response necessary to address the identified transmission needs  
13 without significant investment in control technology and disruption to the customers' business  
14 processes. In addition, there are other benefits associated with increasing transmission capacity  
15 in the areas where these customers are located, such as enabling the interconnection of additional  
16 wind generation, that alleviate the need for demand response at this time.

# **BENEFITS OF MPPRP – EXHIBIT 1**

Subcommittee #3 (Transmission and Grid Related Issues)  
Draft Recommendations  
10.26.09

1. Amend state law and state energy plan to explicitly incorporate the likely need for expansion of state T&D capacity to achieve the state's onshore and offshore wind goals.
  - a. Amend 35-A MRS § 3404 (1) to read: **Encouragement of wind energy-related development.** It is the policy of the State, that in furtherance of the goals established in subsection 2, its political subdivisions, agencies and public officials take every reasonable action to encourage the attraction of appropriately sited development related to wind energy, including any additional transmission infrastructure needed to transport additional onshore and offshore wind energy to market, consistent with all state environmental standards; . . . (new language underlined)
  - b. Amend 35-A MRS § 3132 (6) **Commission order; certificate of public convenience.** In its order, the commission shall make specific findings with regard to the need for the proposed transmission line. A certificate may be granted by the commission for a line that is sized not only to serve current load, but also to serve the reasonably anticipated future growth of generation to meet the state's wind energy goals, when the commission determines that such an expansion is expected to minimize long term transmission and distribution system costs.
  - c. Amend the State Energy Plan to acknowledge the need for new transmission capacity to support development of significant amounts of offshore wind.
2. Amend State law to provide for ratepayer cost recovery of generator lead lines when the PUC makes certain findings, including: the transmission corridor has been designated an energy infrastructure corridor and the commission approves a certificate of public convenience and necessity.
  - a. Amend 35-A MRS § 3132 (1-B). **Exception; generator interconnection transmission facility.** The construction of a generator interconnection transmission facility is not subject to the requirements of this section (certificate of public convenience and need), unless the commission has designated the transmission facility as an energy infrastructure corridor under §122 (2) of this title, and seeks recovery of the costs of such facility from ratepayers under subsection 6.
  - b. Amend 35-A MRS §3132 (6): The commission may grant a certificate of public convenience for a generator interconnection transmission facility associated with an offshore wind or tidal power facility that has received all

necessary environmental permits and is being constructed to achieve the state's offshore energy goals. The commission may direct the reasonable costs of constructing that facility be incorporated into T&D rates when it determines that, but for such cost recovery, the generator would be unable to finance its project and the ratepayer impact is determined reasonable.

3. **Explicitly recognize in state law and energy plan the economic and environmental benefits of electrification of home heat and transport sectors. Set a goal to electrify xxx,000 homes by 2030.**
  - a. Amend 35-A MRSA §3402 (1) by adding: C. Maine's renewable energy resources can generate electricity needed to convert Maine's homes and motor vehicles from oil heat and liquid petroleum fuels to electric heat pumps, thermal energy storage, and electric vehicles. Electrification of home heat and transportation will increase the state's energy independence, help to stabilize total residential and commercial energy bills, and reduce greenhouse gas emissions.
  - b. Amend 3402 (1) further by adding subsection 3: **State goals to electrify heat and transport sectors.** It is the policy of the state that, in furtherance of its goals to promote energy independence, reduce overall energy costs and greenhouse gas emissions, and encourage the development of its renewable energy resources, the state shall promote the conversion of residential and commercial heating systems in structures that have previously been weatherized, and motor vehicles, to more efficient energy sources, including: electric heat pumps and electric vehicles.

The state shall seek to convert at least xxx,000 residences to more efficient electric heat sources by 2030.

Note: state has set goal to weatherize all homes and ½ businesses by 2030.

4. **The legislature shall direct the MPUC to initiate a proceeding to explore mechanisms needed to achieve the state's electrification of home heat and transport policy and goal to promote and best utilize Maine's renewable energy generation potential, including examination of the following:**
  - a. Rate design structures that will encourage the use of intermittent renewable energy resources, including off peak time of use T&D rates;
  - b. Changes to the standard offer pricing to include off peak time of use energy prices;
  - c. The penetration of time of use meters;

- d. The long term needs for a “smart grid” that will enable the efficient usage and storage of energy produced by intermittent renewable resources;
- e. Any other mechanisms that would encourage the development and usage of Maine’s renewable energy resources to replace the use of fossil fuels for heat and transportation whenever conversion would reduce overall energy consumption, increase the state’s energy independence, and reduce greenhouse gas emissions.

The MPUC shall report to the legislature, including recommendations for rate design changes, “smart grid” investments, and other mechanisms needed to promote electrification of the home heating and transport sectors.

- 5. **Amend state law to direct the MPUC to issue an RFP for up to 200 MW of offshore wind. The Commission shall direct a T&D utility to enter into a long term contract for the energy, capacity and renewable energy credits from an offshore wind facility if it determines that the ratepayer impact is reasonable, taking into consideration the risks associated with fossil fuel price volatility over the next 20 years, greenhouse gas emission reductions, and the state’s offshore wind energy goals. The commission shall also consider the energy and cost savings from state programs to weatherize and convert homes to more efficient heat sources in determining the reasonableness of ratepayer impacts.**
  
- 6. **The MPUC and OEIS should continue to work through the ISO-NE, and the Governor’s Office should continue to work through the New England Governors/Eastern Canadian Premiers Conference and other regional forum, to best achieve the state’s wind goals in the lowest cost manner possible with a focus on regional cooperation. The adoption of rational cost allocation policies for T&D investments that further the regional system’s reliability and help achieve its renewable energy and climate goals while minimizing litigation is essential.**