From:	Amber Nyquist <nyquist@eesconsulting.com></nyquist@eesconsulting.com>	
Sent:	Friday, April 06, 2012 1:27 PM	
Το;	Reagan; Robert (Bob) R.; jdoering@iec-corporation.com	
Cc:	Gary Saleba; Helmick; Dan B.; Anne Falcon; Kelly Tarp; Ori; Eugene A.	
Subject:	Data Request	
Attachments:	Data Request.docx	

Please find attached a data request for ML &P's 2012 IRP. We are currently working on the load forecast for this study. Please let us know if you have questions.

Thanks,

Amber

Date:	11/27/17	Exh # H-19
		ission of Alaska
U-16-1	094 By: 8	U-17 -008
Northern		e & Reporting, Inc.
	(907) 337-	-2221



April 6, 2012

TO:	Bob Reagan
	Josh Doering
FROM:	Amber Nyquist
CLIENT:	Anchorage ML&P
SUBJECT:	ML&P 2012 IRP Data Request

This memo describes data needed for the 2012 IRP. The first part describes data for general IRP assumptions. The second part describes the output data that we need from a dispatch model. Please let us know if you have questions about the data request.

IRP General Data Request

The following general data is needed for the IRP. Figures in parentheses show the assumptions for the 2009 IRP.

- Fuel price forecast (if updated forecast is available). The latest forecast we have is dated March 16, 2012. There are several natural gas price forecasts included in the March file. Please advise which forecasts to model.
 - Utilities ASAP Base with high LNG prices
 - Utilities ASAP Base with mid LNG prices
 - Utilities ASAP Base with low LNG prices
 - Utilities No ASAP Base with high LNG prices
 - Utilities No ASAP Base with low LNG prices
 - ML&P ASAP Base with high LNG prices
 - ML&P ASAP Base with mid LNG prices
 - ML&P ASAP 250 MMCC/D, low LNG prices
 - ML&P No ASAP Base with low LNG prices
 - ML&P No ASAP Base with high LNG prices
- Financial Assumptions (2009 IRP assumptions)
 - Inflation (2.5%)
 - Cost of equity (12.5%)
 - Equity investment (20%)
 - Cost of debt (5.25%)
 - Borrowing rate (6.7%)

- Capital cost inflation (4%)
- Fuel Cost Assumptions
 - Gas Transportation (fixed \$/year)
 - Gas Transportation variable (\$/MCF)
 - Gas Transportation inflation factor (2.5%)
- Please define the Base Case Scenario
- Scenarios to model
- Capital costs and O&M costs for each scenario identified including the Base Case

Dispatch Model Output

Once the scenarios are identified, the dispatch model will be used to generate data for use in the IRP. The data required from the dispatch model includes:

- Dispatch Model Data Output by year
 - Generation (MWH) for each generating unit
 - ✓ Fuel use (MMBtu) for each generating unit
 - ✓ Startup costs modeled as fuel use (MMBtu)
- Other Considerations
 - ✓ Spinning reserve requirements (MW and units used to meet the requirement)
 - ✓ Available economy sales (MWh).
- Output Years:
 - ✓ 2014
 - ✓ 2024
 - · 2034
 - Any other year a new unit begins operating

The generating units will be run to meet Native Load only, Native load plus economy sales (if needed), and Native load less QF sales (need to know what to assume for QF output).

CC Dan Helmick Gary Saleba Anne Falcon Eugene Ori Kelly Tarp