

Integrated Resource Planning (IRP) Training
South Carolina Public Service Commission and Office of Regulatory Staff
AGENDA

Day 1 – March 1, 2021 (all times Eastern)

Welcome & Introductions Agenda Overview	1:00 p.m.
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IRPs in the US: A Review of Requirements - Alan Cooke, Pacific Northwest National Laboratory (PNNL) <ul style="list-style-type: none">• Origin, geography, and frequency• Basic governance structure and requirements	1:10 p.m.
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Purpose & Application of IRPs - Tom Eckman, Berkeley Lab subcontractor	1:30 p.m.
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Major Components in IRP Development Process by Utilities - Tom Eckman <ul style="list-style-type: none">• Load Forecasting – Energy and Capacity<ul style="list-style-type: none">▪ Evaluating potential new large loads• Evaluating Additions & Retirements of Utilities’ Existing Resources• Resource Adequacy Study<ul style="list-style-type: none">▪ Assessment of Utility Resource Needs – Energy and Capacity• Evaluation of New Generating Resource Options<ul style="list-style-type: none">▪ Fuel Price Forecasting▪ Generating Resource Cost Estimates (incl. PPAs)• Treating Energy Efficiency and Demand Response as Resources - Natalie Mims Frick, Berkeley Lab	1:45 p.m.
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BREAK	3:00 p.m.
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Major Components in an IRP Development Process, <i>cont.</i> <ul style="list-style-type: none">• Selecting Multiple Resource Portfolios<ul style="list-style-type: none">▪ Estimating portfolio costs based on recent RFPs, forward market prices, technology assessments, etc.▪ Selection of Preferred Plan• Treatment of Risk and Uncertainty in Portfolio Analysis<ul style="list-style-type: none">▪ Stochastic analysis▪ Portfolio sensitivities	3:15 p.m.
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Q&A/Discussion	4:00 p.m.
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Technical Modeling Used in IRP Development - Tom Eckman <ul style="list-style-type: none">• Load Forecasting Models• Resource/Capacity Expansion Models	4:15 p.m.
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<ul style="list-style-type: none"> • Evaluation of EE/DR Potential & Pace of Implementation <ul style="list-style-type: none"> ▪ Examples of EE/DR Resources in Recent IRPs • Uncertainty and Risk Analysis 	
Q&A/Discussion	4:45 p.m.
Day 2 – March 4, 2021 (all times Eastern)	
Stakeholder Engagement Practices - Natalie Mims Frick, Berkeley Lab	1:00 p.m.
Conducting a Technical Review of an IRP, Part I - Tom Eckman, Berkeley Lab <ul style="list-style-type: none"> • Overview of Best Practices for Reviewing IRP <ul style="list-style-type: none"> ▪ Compliance with S.C. Statute ▪ Common Issues with Utility IRPs • Reviewing Utility IRP Results & Preferred Plan • Reviewing Utility IRP Input Assumptions <ul style="list-style-type: none"> ▪ Load Forecast Methodology & Range ▪ Resource Potential Assessment (EE/DR/DER and Utility-Scale) ▪ New Generation Capacity & Cost Assumptions 	1:30 p.m.
BREAK	2:45 p.m.
Conducting a Technical Review of an IRP, Part II - Tom Eckman, Berkeley Lab <ul style="list-style-type: none"> • Resource Portfolios Input Assumptions <ul style="list-style-type: none"> ▪ Capital & Fuel Prices ▪ Resource Retirements (Coal) ▪ Environmental Regulations (CO₂ Policy) • Reviewing Resource Optimization Methodology • Reviewing Treatment of Risk & Uncertainty 	3:00 p.m.
Questions Regulators & Commission Staff Can Ask Utilities - Tom Eckman, Berkeley Lab	3:45 p.m.
IRP Emerging Requirements and Best Practices - Jeremy Twitchell, PNNL	4:00 p.m.
Q&A/Discussion	4:30 p.m.
Wrap Up and Adjourn	5:00 p.m.