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Banking, Imports/Exports and Reserve and the Residual Mix in NE-GIS

RGGI Imports and Leakage Working Group

Presented by:
Patricia Stanton
Conservation Services Group
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CSG: a clean energy markets participant

- Offering Green-e voluntary product since 2000
- active stakeholder in design of NEPOOL GIS, PJM GATS, and WREGIS
- Transact ~ \$8 million annually in RECs
- Import > 200,000 MWh from NY for RPS eligibility
- Transact ~ \$50,000 annually in NO_x allowance claims
- Joining Chicago Climate Exchange as offset aggregator



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Summary

- The power of disaggregated data
- Why the details matter
 - Behind-the-meter resources
 - Banking
 - Imports/exports
 - Reserve
- Concluding thoughts



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Power of disaggregated data

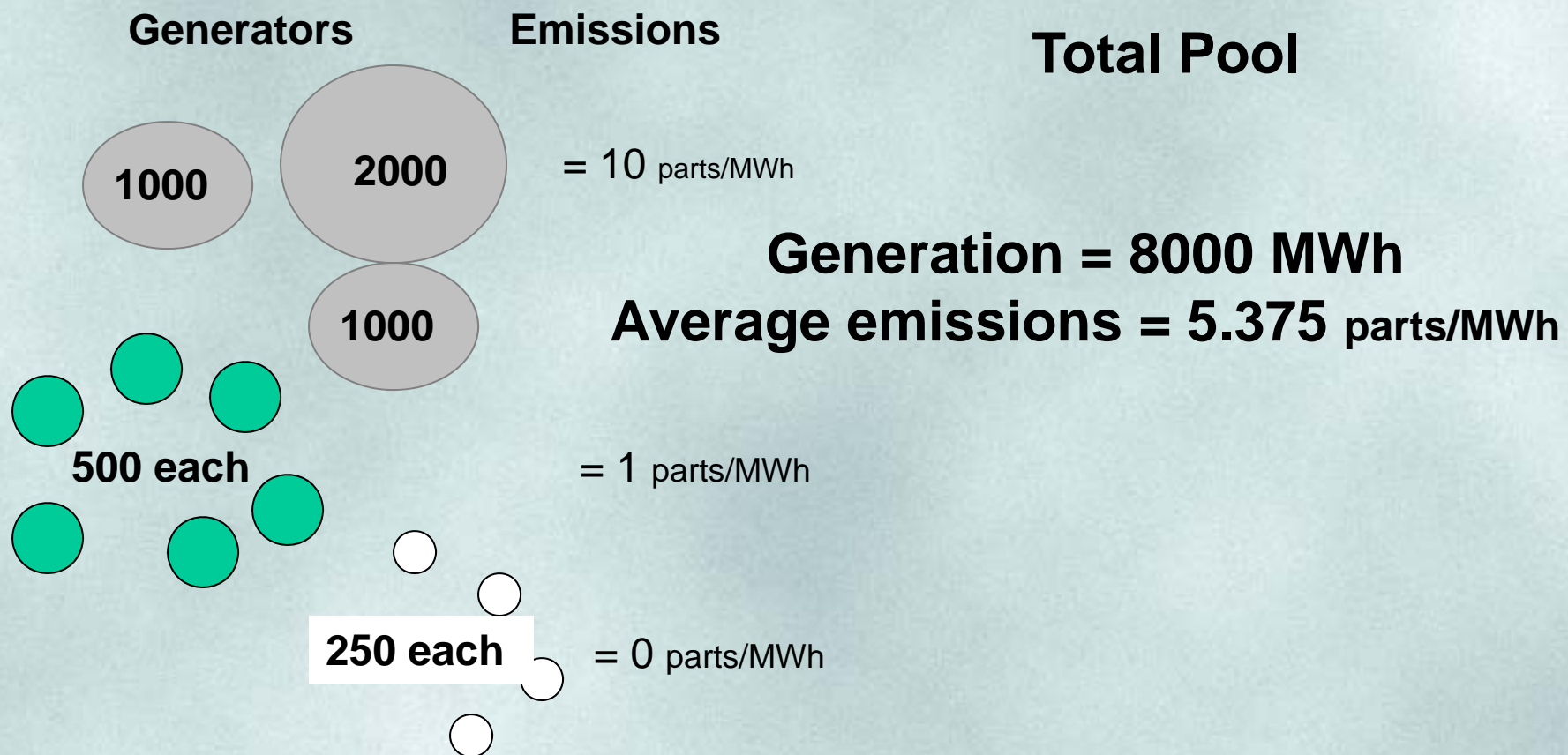
- Extensive data reporting capability
Creating data reports:
Product, distribution company,
competitive supplier, control area and/or
political jurisdiction
- Basic settlement year model



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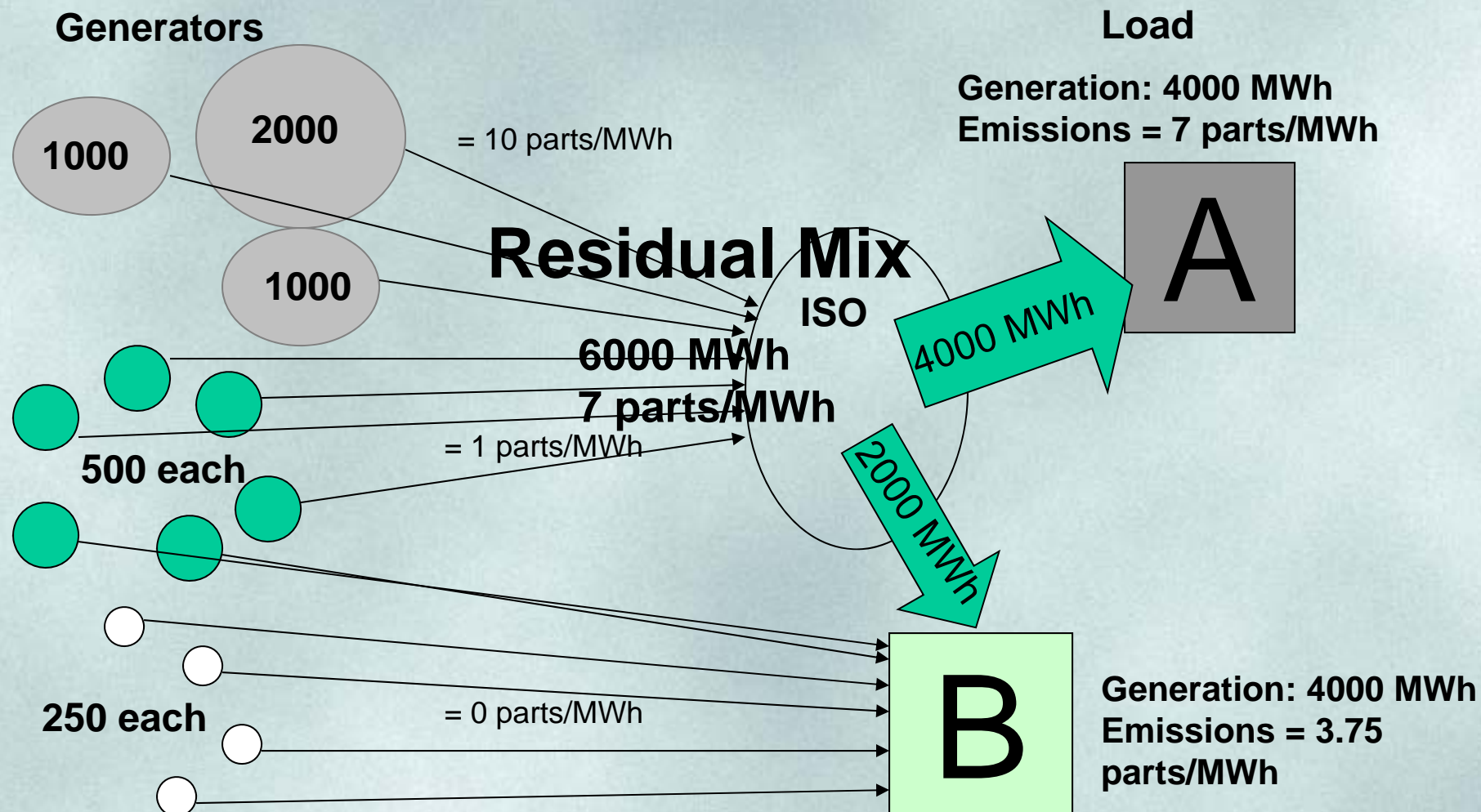


Basic settlement model





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Why the details are important

- Because there are always exceptions
- Banking, imports/exports and reserve are exceptions
 - Banking: counting some attributes in a different time period
 - Imports/exports: relations with other control areas that have different data detail
 - Reserve: removing some attributes from the system altogether



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Behind-the-meter resources

- Description
 - Self reporting: Production and emissions
 - Third party verification
- Impact on residual mix
 - Restricted to renewables
 - Small adjustment in number of Residual Mix Certificates to “create room”
- RGGI
 - Good tool to track and analyze impact of small projects



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Banking

- Description
 - Neither GATS or NE-GIS allow emissions to be moved out of a calendar year
 - NEPOOL Does allows banking emissions for interim quarterly settlements within a calendar year
 - Compliance banking does not impact emissions mix in calendar settlement year
- Impact on Residual Mix: None
- RGGI: Good tool to track generation year impacts



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Imports/exports

- Description:
 - Energy moves in and out
 - System power flows
 - Air regulators establish emission profiles to be assigned
 - Unit specific flows
 - Extensive documentation requirements
 - Currently limited to renewable resources only
 - Hourly/monthly match



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Imports/exports

- Impact on residual mix
 - System power transactions
 - Unit specific transactions
- RGGI
 - System power leakage
 - Unit specific leakage
 - Existence of generation unit specific data creates infrastructure to support GHG public policy



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Reserve

- Description
 - Provision to record sale of attributes dissociated from any power sale
 - Example: Whole Foods
- Impact on Residual Mix
 - Small adjustment in number of Residual Mix Certificates to “cover gap”
- RGGI
 - It depends
 - Existence of generation unit specific data creates infrastructure to support GHG public policy



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Concluding thoughts

- The systems are very flexible and adaptable
- Determining the appropriate public policy is the difficult part
- GATS and ISO-NE are an excellent resource for monitoring and potentially moderating leakage impacts in RGGI



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For additional information:

Patricia Stanton

Clean Energy Markets Director

(508) 836-9500 x3297

pat.stanton@csggrp.com

www.csggrp.com