

TRADING RENEWABLE ENERGY AND ITS ATTRIBUTES

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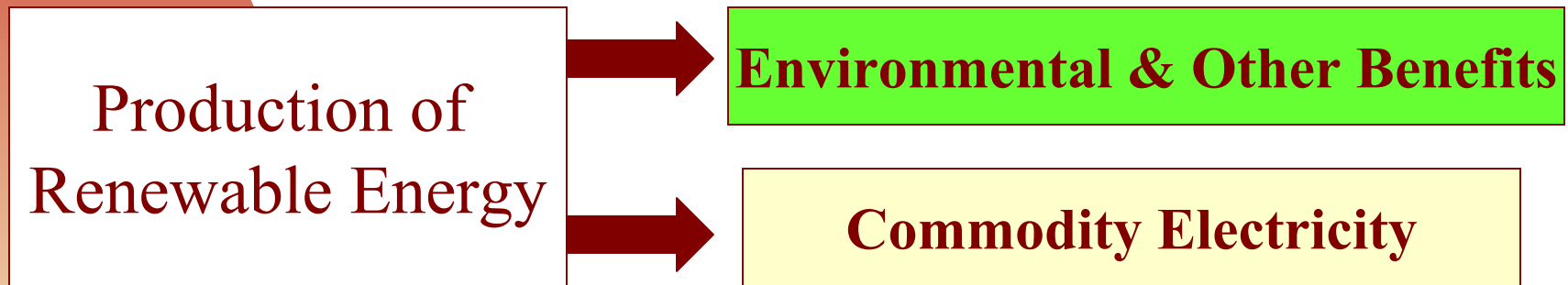
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WHAT ARE RE ATTRIBUTES?



Certificates represent the contractual right to claim the environmental and other attributes associated with electricity generated from a renewable energy facility

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WHAT'S IN A NAME?

- Name Game:
 - Green Tags
 - Green Tickets
 - Renewable Credits
 - Renewable Certificates
 - RECs
 - **Tradable Renewable Certificates (TRC)**
 - T-RECS

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BENEFITS OF TRCs

- Facilitates renewable energy **markets**
- Breaks down **geographic** boundaries
- Creates **fluidity** in markets
- Directs dollars to **lowest cost** renewable resources
- Can be used as a **financing mechanism** for new renewable energy facilities
- Could be used for **solar aggregation**

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WHO IS PURCHASING TRCs?

- Utilities with RPS Requirements
- EPA, DOE, GSA, WB/GEF
- Olympia, WA Coffee Roaster
- Rhode Island Super Market Chain
- Universities & Hotels
- Events Organizers
- Non Profit Organizations
- Other C/I Customers
- Residential Consumers

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TRC RESEARCH RESULTS

- AAIB for North America should be **established asap**
- AAIB meet US and North American market needs and **compatible** with European system
- AAIB -- develop **default** issuing bodies for other regions that are not currently covered with IB's

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TRC RESEARCH RESULTS (CONT.)

- AAIB includes **all renewables**
- Conducting research on **legal issues** of a North American market
- Issuing Bodies cover **multi-state regions**, serve multiple functions
- AAIB ensure **secure and seamless communication**

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AMERICAN ASSOCIATION OF ISSUING BODIES

- Forum to bring regional parties together to:
 - Establish **common protocol** for issuing & tracking TRCs
 - Develop minimum standards for **certificate information**
 - Agree to **share information**
 - Establish “**domains**” of issuing bodies
 - Work towards establishment of **coordinated national tracking**

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AMERICAN ASSOCIATION OF ISSUING BODIES

- Creation of a **national TRC tracking system**
 - Based on European Association of Issuing Bodies
- First meeting in Spring 2002
- Founding Meeting with Potential Members Spring 2003
 - System Operators
 - TRC Stakeholders

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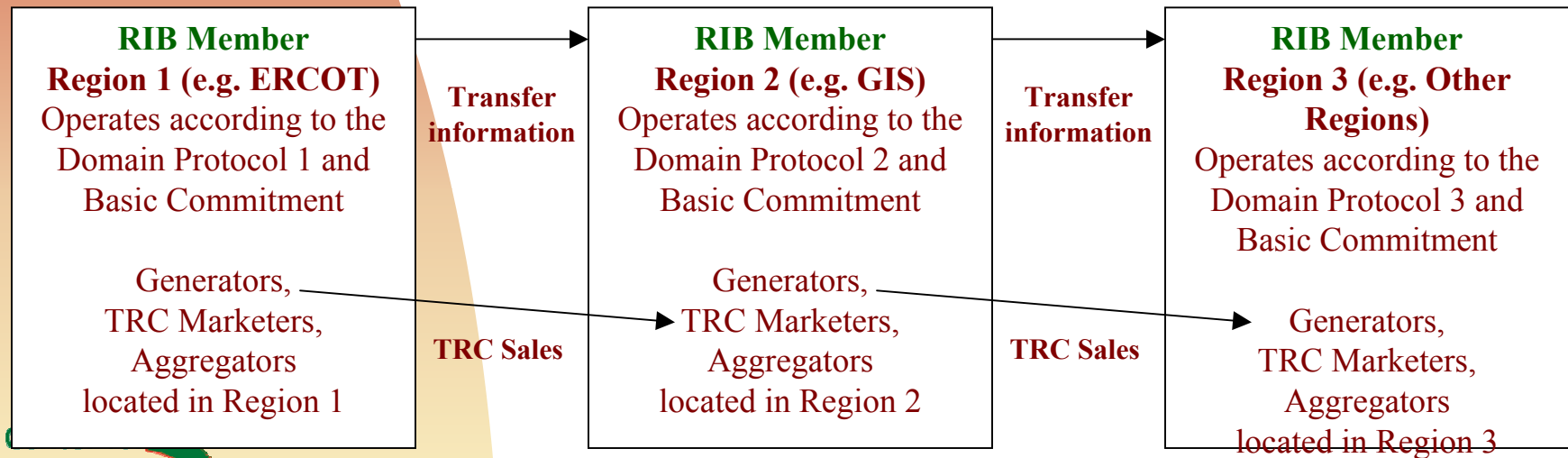


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ORGANIZATIONAL STRUCTURE OF A NORTH AMERICAN TRC TRACKING AND VERIFICATION NETWORK

American Association of Issuing Bodies (AAIB)
All members agree to the Basic Commitment

(Regional Issuing Body -- RIB)



AAIB ACTIVITIES

- Registering generators
- Issuing certificates
- Transferring ownership of certificates,
- Recording information in the Central Registration Database,
- Verifying generation,
- Investigating requests for changes to the Basic Commitment rules, and
- Mediating disputes

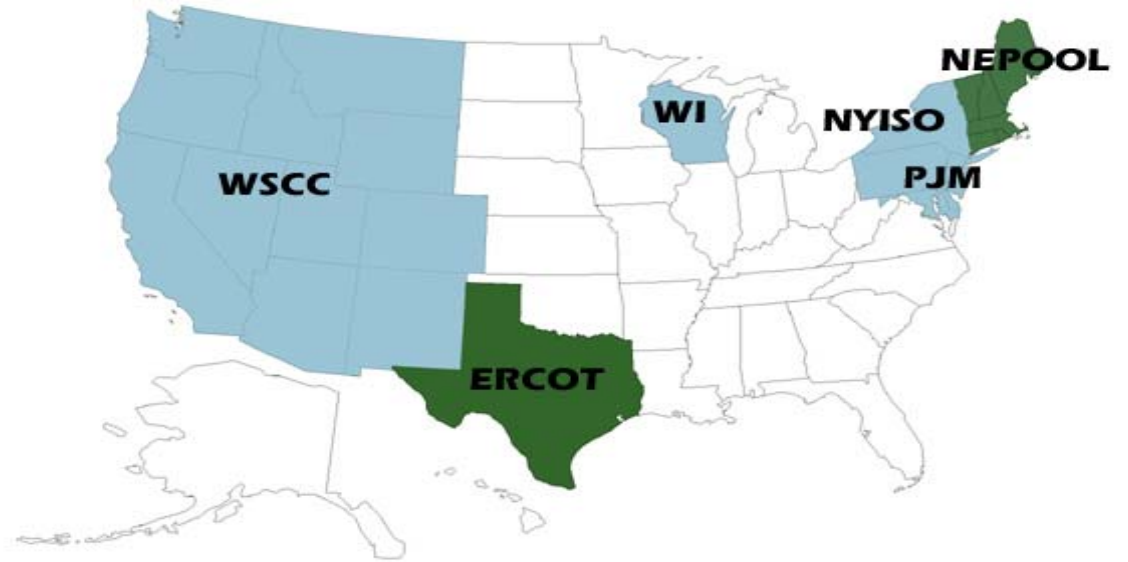
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Potential TRC Domains in the US

Canadian System in Process



- system operational or in development
- system in discussion

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ISSUING BODY (IB) PROTOCOL

- Only **one** IB for any RE generator
- IB should accommodate:
 - **All** types of RE
 - **Small, distributed** generation
 - **Various disclosure** systems
 - **Various pollution offset** systems
 - Rural, **off-grid** systems
 - Tracking **all wholesale** TRC transactions

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ISSUING BODY (IB) PROTOCOL (CONT.)

- In start-up phase, capacity to **export** certificates
- Determine if any attributes have been **split-off** (only track whole TRCs)
- Database that allows **conversion** of TRCs to emission offsets

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FOR ADDITIONAL CRS INFORMATION

- TRC and Green-e Certification:
 - Gabe Petlin, gpetlin@resource-solutions.org
 - www.green-e.org
- Green Pricing Accreditation:
 - Dan Lieberman, dan@resource-solutions.org
 - www.resource-solutions.org
- AAIB and National REC Tracking Initiatives:
 - Meredith Wingate, mwingate@resource-solutions.org
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