

A close-up photograph of the Canadian and United States flags. The Canadian flag is on the left, showing its red and white colors and a white maple leaf. The US flag is on the right, showing its red and white stripes and a blue field with a white star. The flags are slightly out of focus, creating a soft background for the text.

Canadian Hydropower in the North American Context

Canada-US Relations: Perspectives

Tuesday October 26, 2010

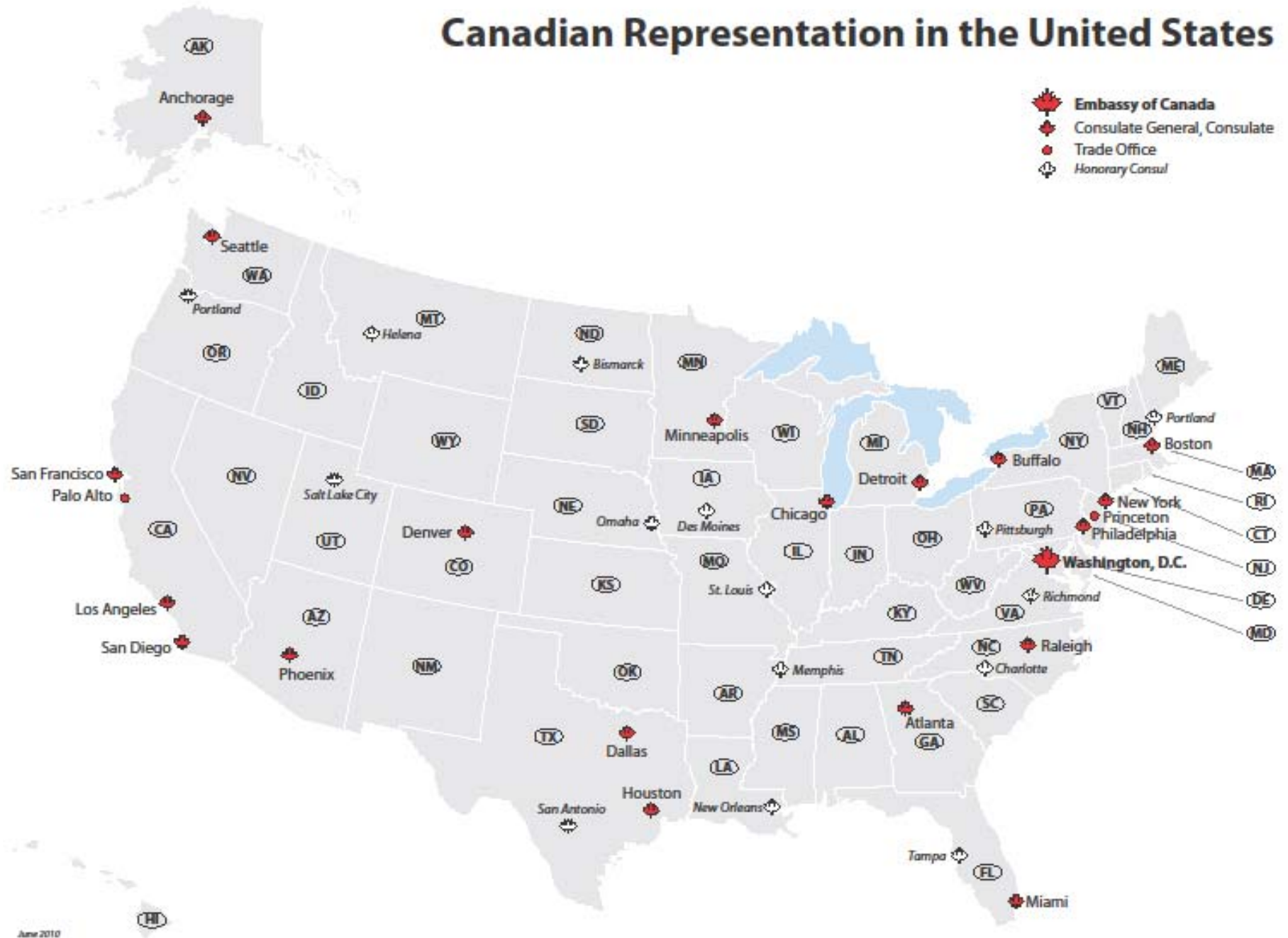
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Canadian Representation in the United States



Whither U.S. Legislation?

A close-up, slightly blurred image of the American flag, showing the red and white stripes and a portion of the blue field with a white star. The flag is positioned on the right side of the slide, partially overlapping the text.

➤ **Waxman-Markey**

- comprehensive climate/energy bill
- voted out of House but no companion Senate bill

➤ **Kerry/Graham/Lieberman**

- unsuccessful companion to Waxman-Markey

➤ **Bingaman**

- energy-only bill
- voted out of committee but no full-Senate vote

➤ **Post mid-term elections?**

- climate legislation extremely unlikely
- some form of energy bill possible but still difficult
- likely focus on EPA regulations/DOE programs

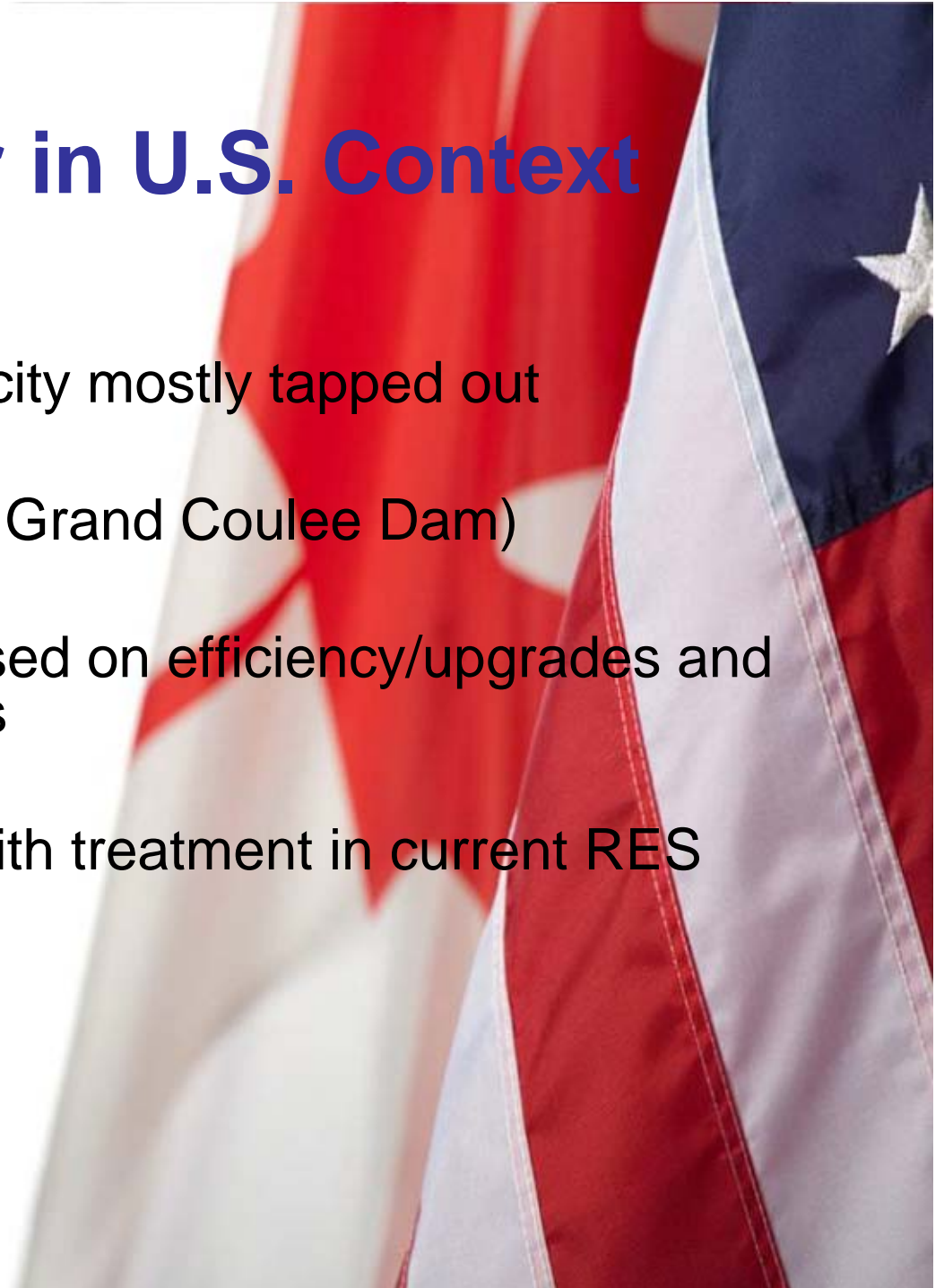
Renewable Electricity Standards (RES) Proposals in Congress

Sen. Bingaman set the standard in ACELA 2009:

- 15% by 2021
- 4% achievable through efficiency gains
- Qualified renewables: wind, solar, ocean, geothermal, biomass, landfill gas, hydrokinetic, waste-to-energy, and "incremental" hydropower
- Large hydropower and new nuclear "netted out" from base load to which standard would apply – **benchmark language for future RES proposals**

Hydropower in U.S. Context

- Large hydropower capacity mostly tapped out
- Historical baggage (e.g. Grand Coulee Dam)
- U.S. Government focussed on efficiency/upgrades and new small-scale projects
- U.S. industry satisfied with treatment in current RES proposals



Canadian Hydropower is Valuable



U.S. Utility # 1

- Total electricity sales = 100MW
- Brings in no power from Canada
- **RPS obligation: 15MW**
15% of 100 MW = 15MW
- 15MW is expensive, hard to find, complicated from regulatory point of view.

U.S. Utility # 2

- Total electricity sales = 100 MW
- Brings in 50MW from Manitoba Hydro
- **RPS obligation: 7.5 MW**
15% of total electricity minus any generated from non-emitting sources (15% of 50MW)
- Hydropower purchased from Canada reduces RPS obligation and cost to the utility. One MW of Canadian hydropower more valuable than one unit of coal or gas generated electricity in U.S.

Potential gains at State Level

- U.S. states facing challenges in meeting individual RES mandates
- Canadian hydropower carries a premium
- Hydro-Québec/Vermont agreement represents breakthrough
- If replicated in other states, could influence national policy



Canada-U.S. Clean Energy Dialogue



- Three R&D Pillars:
 - *Expand clean energy research and development*
 - *Develop and deploy clean energy technology*
 - *Build a cleaner, more efficient electricity grid*
- 20 joint research projects
- 2nd Report to Leaders to be issued soon
- Possible expansion?