

EXPERTISE

- **Clean Power Investment Strategy**
- **Clean Power Project Finance**

ASSIGNMENTS

Structured equity & debt financing for renewable power and other infrastructure projects for domestic U.S. and emerging market projects.

YEARS OF EXPERIENCE

Infrastructure Finance: 30 Years
Renewable Power Finance: 17 Years

LICENSES

FINRA Series 7 & 63

EDUCATION

MA in Law and Diplomacy, 1985
The Fletcher School of Law & Diplomacy
Tufts University, Massachusetts

Certificate in French Language Studies, 1981
l'Université de Grenoble, France

BA in Government, 1980
Pomona College, California

British Parliament internship, 1979,
Birkbeck College, University of London

PROFESSIONAL ASSOCIATIONS

New England Clean Energy Council
N.E. Energy & Commerce Association
American Council on Renewable Energy
Solar Electric Power Association

PUBLICATIONS, CONFERENCE, & SEMINAR PRESENTATIONS

Peer reviewer, 2014 report on tax equity for solar and wind projects, U.S. DOE Lawrence Berkeley National Labs (<http://emp.lbl.gov/sites/all/files/lbnl-6610e.pdf>)

Co-author, 2012 review of §1603 federal tax grants, National Renewable Energy Laboratory (NREL) (<https://financere.nrel.gov/finance/>)

Lead author, 2007 report on utility-scale wind project financing structures, LBL (<http://eetd.lbl.gov/EA/EMP/reports/63434.pdf>)

PROFESSIONAL PROFILE

John Harper leads Birch Tree Capital, LLC, an independent financial advisory firm helping clients understand and close financing for renewable power projects. Birch Tree Capital assists investors, off-takers, and developers on:

- clean power investment strategies and financing structures
- sourcing equity, debt, & grant financing for wind & solar & storage projects
- project due diligence reviews and contract negotiations
- financing for emerging clean power technology companies.

Clients have included equity investors (strategic and institutional), fund managers, developers, off-takers, and lenders. Mr. Harper also advises public and non-profit entities on clean power financing structures and incentives and sourcing clean power. He is a frequent speaker on policy and mechanisms for financing distributed commercial solar projects.

Mr. Harper is highly experienced in structuring equity and debt for renewable power and other infrastructure projects in the domestic U.S. and emerging markets. Before founding Birch Tree Capital, he closed debt and equity financing for domestic and overseas power and other infrastructure projects for multiple international companies, including EDF Renewable Energy, ABB, Wärtsilä, and for the Overseas Private Investment Corporation (OPIC). He co-founded Cedar Energy Investors to invest in small commercial solar projects in New England. He assists the New Energy Clean Energy Council on Massachusetts state renewable power policies.

RELEVANT EXPERIENCE

2004 – Present	Founder and Principal, Birch Tree Capital, LLC
2011 – Present	Co-Founder and Partner, Cedar Energy Investors
2007- 2009	VP-Finance, Treasurer & Secretary, Ze-Gen, Inc.
2003- 2004	Director of Finance, EDF Renewable Energy (formerly enXco, Inc.)
2000- 2002	VP- Business Development, ABB Financial Services
1996- 1999	Managing Director- Finance, Wärtsilä Power Development
1986- 1996	Manager- Finance, Senior Investment Officer, Financial Analyst, Overseas Private Investment Corporation

REPRESENTATIVE ASSIGNMENTS

- Syndicating tax equity partnerships for a major U.S. bank for utility-scale and portfolios of solar and wind projects.
- Advising a global manufacturer on solar procurement for its headquarters campus, including reviewing bid proposals, recommending winning contractor and project, reviewing PPA, and assessing projected savings.
- Served as interim senior finance manager for a national developer of commercial-scale solar projects. Closed financing for multiple projects.
- Co-founder and partner of an investment firm owning small commercial solar power projects in New England. Identifying suitable contractors and projects, negotiating project contracts, managing solar portfolio.

Peer reviewer, 2012 report on impact of financial structure on cost of solar, NREL
www.nrel.gov/docs/fy12osti/53086.pdf

Co-Author, 2007 study for State of Rhode Island profiling financial viability of in-state wind projects.

Conference Chairman & Panel Moderator,
Distributed Solar East Summit,
May 2015.

Speaker on Massachusetts solar incentives
Solar Power Finance & Investment Summit
February 2014.

Panelist, Innovative Financing Structures,
Distributed Solar East conference,
June 2013.

Speaker on Financing Structures
Solar Power Finance & Investment Summit
March 2013.

Lecturer, Creative Solar Finance course,
MBA Interterm, University of Notre Dame,
Spring 2013.

Panelist, Distributed Solar Summits,
May 2015 and November 2012.

Lecturer, Leading Clean Energy Ventures
Certificate Program, co-sponsored by the
Northeast Clean Energy Council & Boston
University School of Management, 2011-12

Moderator, Roundtable review of financing
for renewable power projects, Tax Planning
for Renewable Energy Projects Workshop,
September 2011.

Moderator, Distributed Solar Project Risks
panel, Distributed Solar Finance Summit,
December 2010.

- Advised multiple Massachusetts municipalities in selecting solar developers/projects, and negotiating purchase contract documentation.
- Assisted an association of non-profit entities to expand its solar power vendor services. Association members use a pre-approved solar developer to design, finance, install, and operate distributed solar projects for their facilities. Helped design the selection process, interview developer candidates, and negotiate program agreements.
- For tax investor client, led team investing in wind projects. Closed investments in almost 300MW of projects; \$450 million in capitalization. Monitored portfolio. Advised on subsequent sales of tax equity interests.
- Assisted a venture capital-backed start-up energy efficiency company negotiating a financing program to fund small-scale energy efficiency and solar projects for commercial/industrial clients.
- Advised a start-up distributed solar and wind project equity fund. Wrote investment strategy; generated project pipeline; established due diligence investment evaluation procedures, identified potential fund investors.
- Advised National Renewable Energy Laboratory (NREL) on financing structures and market trends for utility-scale solar projects. Prepared illustrative solar investment models to enable NREL to enhance its SAM project modeling software program.
- Advised a solar project developer on partnering with a national real estate investment trust (REIT) for financing distributed commercial solar projects.
- Advised state agencies in Massachusetts, Delaware, and New Jersey on financing incentives for solar and wind projects.
- For a clean materials start-up firm, managed creation of the company's corporate financial model for the company's equity fund-raising activities.
- *For Ze-gen*: (a clean tech waste-to-energy firm), closed \$20 million Series B equity round. Sourced and closed \$2.5 million corporate venture debt.
- *For EDF Renewable Energy*: Closed \$126 million in equity and debt financing for a portfolio of nine wind projects. 2002 financing was the first U.S. project to source both third party tax-oriented institutional equity and syndicated commercial bank debt.
- *For ABB*: Wrote business plan for financing mid-sized U.S. wind projects. Committed \$72 million in loans for wind & other clean power projects.
- *For Wärtsilä*: Secured \$330 million in international equity and debt commitments for three diesel power projects in Pakistan, Bangladesh, and Kenya. Secured political risk insurance coverage for company investments.
- *For OPIC*:
 - Led ten-person team financing U.S. investments in Russia & other former Soviet republics. Directed \$550 million in loan commitments for various telecommunications, oil, mining, and financial services projects.
 - Loan officer for multiple telecommunications, oil, mining, tourism, and other investment projects in Latin America, Caribbean, sub-Saharan Africa.
 - Structured complex financings; coordinated with investors & project risk insurers; negotiated loan agreements; monitored loan portfolio.