

SWITCH

PRESS KIT



WHAT IS THE FUTURE OF ENERGY?

Join Dr. Scott Tinker on a spectacular global journey to discover a balanced path to our energy future.

“Every person in America should see and digest this film.”

- Douglas Johnson, Statoil

“Over the 30 years I’ve been working in renewable energy, Switch is the most comprehensive and balanced documentary on our world energy situation I’ve ever seen.”

- Phil Dutton, GL Garrad Hassan North America

FAST FACTS

11 countries

26 world-leading energy sites for all energy types

53 expert interviews including:

24 renewable energy specialists

19 fossil energy specialists

11 plant managers for all energy types

10 of the world's leading energy experts in government and academia

9 CEOs of international energy companies, fossil and renewable

Switch took 2 years to film, using 2 primary and 8 additional cameramen, shooting more than 500 hours of footage.

Switch took over 1 year to edit (for the film and the web videos), using 2 primary and 7 additional editors

Dr. Scott Tinker has given **over 450 invited lectures** on energy in the past 10 years

Switch is Director Harry Lynch's **6th documentary** in the past 16 years



ABOUT THE FILM

What does the future of energy really hold? Join energy visionary Dr. Scott Tinker on a spectacular global adventure to find out.

Dr. Tinker explores the world's leading energy sites, from coal to solar, oil to biofuels, many highly restricted and never before seen on film. He gets straight answers from the people driving energy today, international leaders of government, industry and academia. In the end, he cuts through the confusion to discover a path to our future that is surprising and remarkably pragmatic.

Switch is the first truly balanced energy film, embraced and supported by people all along the energy spectrum - fossil and renewable, academic and environmental.

Flying over Roscoe, the world's largest wind farm. Wind makes up 1.3% of U.S. electricity today - but some experts believe it could hit 20%.

ABOUT THE PROJECT

Switch is part of the Switch Energy Project, a multi-prong effort designed to build a balanced national understanding of energy.

It includes: the film, a huge video-based website sure to become one of the web's foremost energy resources; a university screening and efficiency program sponsored by the Geological Society of America and the Verizon Foundation; and a primary school energy education program co-developed with the American Geological Institute. The project is produced by Arcos Films and directed by Harry Lynch.

SwitchEnergyProject.com



KEY QUOTES

Interview with Dr. Scott Tinker and Director Harry Lynch.
Please feel free to use in articles or promotion.

Why was it important for you to make *Switch*?

Harry Lynch (Director, Co-Producer, Co-Writer): Basically, because energy makes modern life possible. It's the most important and pervasive commodity in the world. It powers every mode of transport, all of our buildings, all communication. Allows mechanized agriculture, modern medicine, credit cards and electronic banking on a global scale, everything! These are obvious when we think about them, but most of the time, we take them for granted.

Dr. Scott Tinker (Narrator, Co-Producer, Co-Writer): And energy is in a crucial transition period. We're beginning a shift not only to renewables, but to unconventional oil and gas from shales and sands that require hydraulic fracturing, a politically controversial issue. After Fukushima some countries are reevaluating nuclear. At the same time, global population is growing and modernizing, meaning ever-growing demand. How will we meet that? With what energy types? These are all issues we explore in *Switch*.

What's different about this film than other energy documentaries?

ST: While many other energy films set out with an agenda, then advocate for one energy type or another, *Switch* is different. We started with a question then went out to find the answers, working hard to remain unbiased and open to new ideas. I've been studying our energy transition for 10 years, and working in energy for nearly 30 - and I learned many, many new things on our journey. And they're in the film. It's based on practical, realistic, evidence from the field - and the many other experts we interview! Its controversy is in its balance and candor. In that respect, there is no other energy film like this.

HL: With our preview audiences, we've seen that people from left and right, young and old, fossil and renewable, energy companies and environmental groups, are all positive on the balanced message, and on the conversation it could help start. And really that's our goal - to start a balanced national energy conversation with this film. We need that badly.

ST: Basically, we want to change the way the world thinks about energy. Not too grand a vision! And, because Harry won't say it, I will. There's also great filmmaking here: spectacular photography, an original musical score, global locations that will be completely eye-opening. We surveyed our test audiences, and had a box to rate "The 'Wow, I've never seen that before!' factor." And it always scored a "10."



The Belle Ayr mine in Wyoming's Powder River Basin, the largest coal reserve in the world.

"Smart energy movies like this one focus on pragmatism instead of silver bullets. I found it very encouraging."

-Michael Ming, Energy Secretary of Oklahoma

Talk about those locations. Where did you go, and why?

HL: Visually, we had an opportunity to bring viewers something truly extraordinary. Energy sites are almost completely unknown to people, and often in remote and exotic places.

ST: And it was the most powerful way to investigate the subject - to actually explore energy, to understand how it's made, so we can better understand how it is used and its future role. So we take people to Iceland, for geothermal. 200 miles into the Gulf of Mexico, to the deepest oil platform in the world. To the Andalusian high plateau, for concentrating solar. Inside a mountain in Norway for hydro. 26 spectacular energy locations in all.

HL: I think for both of us, it was the adventure of a lifetime, and we built the story around it - going around the world to discover what our energy future really looks like.

The film uses a very interesting way to measure energy.

HL: We realized there was no way for the viewer to really compare the different energy types and sites. Trying to rate them in megawatts or BTUs doesn't help, because those units mean nothing to the average energy consumer. After struggling with this for months, we finally realized, that that was the unit: the average energy consumer! We would measure

each energy source by how many people it could power in a year.

ST: So we added up the total energy consumption for an average global citizen for a year: their gasoline, electricity, then all the energy that goes into making and shipping all their food and products. Then, their share of all their government's energy, public buildings, roads. It came to a enormous figure, 20,000,000 watt hours, per global citizen, per year. Then we divided the annual output of our energy sites by that.

HL: But again, those millions of watt-hours don't mean anything to most viewers. So we just call that amount of energy "1." One person's energy use per year.

The film seems very balanced in the way it views the different energy sources.

ST: Absolutely. That was a must from the beginning. Every energy source has pros and cons, benefits and challenges. We wanted to present those as fairly as possible so viewers could understand what roles the different resources play and how they fit together, today and in the future. A responsible future requires a balance of energies - there are no silver bullets. It seems like a very simple concept but, I come back to it, there's no other energy film that shows this!

HL: Speaking of simple, we also worked hard to reduce issues to their core. There are many complex concepts in energy, and they're probably very fascinating to physicists, but they don't make for good films. And

Efficiency makes everything better. It plays across every sector, and every energy type. And it's doable right now. Efficiency is the place to start, and we need to start today.



The Solucar Concentrating Solar Station, outside Sevilla, Spain, focuses the sun's heat on a receiver at the top of the tower.

“I very much enjoyed it – Informative, balanced, high production values...”

- Paul Joskow, President, Alfred P. Sloan Foundation

“Five Stars! It's a balanced approach that's very entertaining.”

- Leslie Haines, Editor-In-Chief, *Oil And Gas Investor*

they don't cut to the core of the issue. What is the one benefit, and the one challenge, that really define each energy source? What is the one overarching issue that defines energy?

And what is that one defining energy issue?

HL: Scale! Just the sheer hugeness of everything in energy. As we go through our lives, we rarely if ever encounter the sheer size of energy facilities. Part of our goal of taking viewers to see them was to show the huge, huge processes involved in simply supplying mankind with energy.

ST: That's right. And scale introduces many challenges: Infrastructure is very large, therefore very expensive, therefore built to last for decades, therefore slow to turn over. New technologies take decades to grow to a level of saturation to make a meaningful difference. Emissions are at such a volume that they can affect global climate and ecological systems. We demand extraordinary amounts of energy.

HL: And that's why there's also one key answer to scale.

So, what is the answer to scale?

ST: Efficiency. Energy demand is enormous, because humanity is even more so. How, and how much, energy we choose to use is the way that each of us can impact the seemingly untouchable challenges of scale.

HL: Efficiency is easily the most important learning

of the entire project. If we work on efficiency, all of us, we can make a difference at scale. And we do this through education – like this project – and through changing our culture. Culture, our collective thinking, our common agreement to act in certain ways, may be the only thing more powerful in today's world than the economy. We do many things, purely for cultural reasons, that make no economic sense. Whereas efficiency makes great economic sense! If we can create a culture that places value on energy efficiency, we will see huge gains.

ST: Efficiency makes everything better. It makes current energies have greater impact with less emissions. It makes future energies that may be lower powered more competitive. It saves money to help offset rising energy prices. It plays across every sector, and every energy type. And it's doable right now. Efficiency is the place to start, and we need to start today.

What about the website part of the project?

HL: The on-demand media revolution has finally happened. More web bandwidth is used today to transmit video than anything else, and that will only increase. To keep up with that, we realized, media must change – and so we changed this project. It is not a documentary film that has a complementary website. It is an interactive media project that includes the film, the web and the education program, all the social media components, and a campus ambassador and screening program we're setting up with another non-profit partner. It may expand to a speaking tour for Scott, partnerships with like-minded organizations



Perdido operates in the deepest water of any platform in the world, producing from 22 wells 8,000 feet below it.

to deliver new content, branded energy efficiency merchandise, serialized webcast or broadcast content, on and on.

ST: But back to the website...

HL: Back to the website, it's completely video-driven. New learning is more visual than ever. There are 24 of our best interviews, edited for their best content and thumbnailed by topic. Custom primer videos for each energy type and the 4 big issues of energy. Extended site visits and deleted scenes from the film. Much more.

And the education program?

ST: It lives as part of the website. We're developing that subsection with the American Geosciences Institute - an earth sciences education non-profit - using more custom video content that we'll create and elementary, middle and high school curricula

that they'll test in their partner classrooms across the country. All will be viewable free, with downloadable teacher guides, from the website. Look for that to be available for schools in January 2013.

The film ends by revealing a pathway to our energy future.

HL: Well, that's almost the ending. But yes, it was very important for us to offer a solution - a workable, real solution. Not just to point out problems. Not to aspire to an ideal, but unrealistic, vision. If we're going to take viewers around the world and investigate the pros, cons and future of different energy types, we'd better show how it all fits together to form our energy transition, and exactly how and when that could happen. So we worked very hard on that forecast, based on Scott's years of data, lots of new learning from the field, IEA, DOE, BEG and other forecasts.

ST: It's still just a forecast, but you see in the film the rationale it's based on. Nearly everyone, from all along the energy spectrum - fossil, renewable and environmental - has found it reasonable. Many find it hopeful, in that if we work together, we can supply the world's growing demand for energy. Others find it sobering in that the switch doesn't happen as fast as they hoped it could, but that makes them motivated to do more. And we all need to do more, and I want to emphasize this again, in efficiency. We can be more efficient, smarter about how we use energy in every facet of our lives, without really even changing the way we live. What each of us does, matters.

BIOS

DR. SCOTT W. TINKER

Scott Tinker is the Director of the Bureau of Economic Geology and the State Geologist of Texas. He is also the acting Associate Dean for Research, and a Professor holding the Allday Endowed Chair in the Jackson School of Geosciences at The University of Texas at Austin. He is an internationally known energy expert, giving invited lectures more than 40 times a year to industry, government and academic groups, striving to bring them together in a common understanding of energy. When not travelling he spends time with his wife and four kids - all of them energy experts.

DIRECTOR'S BIO

For 16 years, Harry Lynch has been a documentary director, producer, writer, soundtrack producer and sometime cinematographer, who has made the below films, along with some short docs, fundraisers and commercials. Before that he worked as a photographer, screenwriter, ad writer and producer, audio engineer and record company intern. When not making documentaries, he spends time with his wife and daughter and collects weird world music and jazz. *Switch* is his 6th film and 2nd web project.

Switch (2012 theatrical)

Unconventional (2008 NBC regional)

Recapturing Cuba (2007 PBS)

Ride Around the World (2006 IMAX)

Making the Modern (2003 PBS)

Bullriders (1997 theatrical, DirecTV)

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"I took my students to a screening of Switch, and we spent most of the following class discussing it, a testament to its value as an educational tool. It was amazing..."

-Amy Jaffe, Rice University Energy Program

"Switch really puts all the pieces together, and makes me optimistic for the future. I think it should be seen by everyone..."

-Erin Geoffroy,
Environmental Defense Fund

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