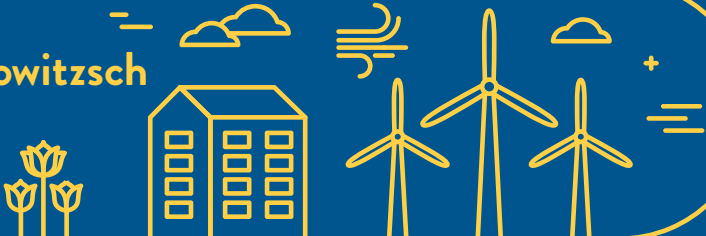


ENERGY TRANSITION

FINANCING CONSUMER **CO-OWNERSHIP** IN RENEWABLES



EDITED BY
Jens Lowitzsch



8

The CSOP-Financing Technique: Origins, Legal Concept and Implementation

Jens Lowitzsch

Property ownership is one of the material prerequisites for the development of personal, political and economic freedom. As the German Federal Constitutional Court has ruled: “The guarantee of ownership shall preserve—in the field of property rights—a free sphere for the bearer of fundamental rights, and thus it shall enable the individual to develop and self-responsibly conduct his life” (BVerfGE 1993). This confirms property ownership as a fundamental right, essential to individual freedom as well as to material welfare. Despite this formal acknowledgment of the centrality of property ownership to the individual and society, most of the citizens of industrial countries possess no productive property of any kind. Thus they are denied not only economic opportunity but the opportunity to actively participate in civil society and the opportunity to enjoy security and leisure. All the more, the average citizen has no property rights even in the entities, which provide basic public services such as energy, water and transport.

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8.1 A Low-Threshold Concept Allowing for the Inclusion of Groups So Far Excluded

How are people born without property—the majority in every country—to acquire an ownership stake in the economy’s energy structure? The answer lays in new methods of finance, which utilize the future earnings of an enterprise to repay formation or purchase costs instead of past earnings, that is, savings. The Consumer Stock Ownership Plan (CSOP) applies the future savings principle to the financing of new utilities in the energy sector. This technique, invented in the 1950s by the American lawyer and investment banker Louis O. Kelso, is especially applicable to financing public utilities on regulated markets so that they are owned by consumers rather than outside investors; due to guaranteed prices, investments in the sector involve lower risk and thus are easier to finance.

In order to enable people without sufficient financial means to acquire capital and, at the same time, stimulate economic growth, Kelso proposed a range of financial methods enabling access to capital through credit guarantees; the prototype of the “leverage buyout” was born (Kelso 1989). These financial methods were designed for different constituencies—most notably, the Employee Stock Ownership Plan (ESOP) for employees, the CSOP for consumers and the General Stock Ownership Plan (GSOP) for citizens are all based on three main ideas (Ashford 1994):

- (1) The allocation of borrowed investment funds sequestered in a special vehicle with its own legal personality, that is, a trust or a similar intermediate company, invested in a business enterprise or equity interest on behalf of the individual plan participants, namely, consumers, employees or citizens
- (2) The repayment of the loan from future earnings of the credit-financed shares—the essence of every profitable investment—instead of savings from foregone consumption
- (3) The securing of the loan by the investment entity, preferably backed by a state guarantee

8.1.1 Background of CSOP-Financing

The CSOP concept was designed specifically for publicly traded companies, which offer their services on regulated markets with natural monopolies. These are usually firms providing public services. However, CSOPs can also be used to finance public infrastructure projects like water purification and sewage systems (Lowitzsch 2017). CSOP-financing requires, first, the establishment of an appropriate fiduciary fund, possibly under the supervision of a competent authority.¹ Normally, consumers are bound to the utility company through either long-term contractual obligations, for example, electricity, gas, water, telecommunications, or a de facto monopoly, for example, transport. Managed by an independent trustee, using public guarantees, the CSOP fund is permitted to take out a loan in order to acquire shares in an existing utility such as a power plant or invest in a new facility such as biogas reactor, wind turbine or a solar panel. The shares in the acquired productive entity are then allocated to the consumers proportionally to their consumption of the utility product, for example, in the case of a CSOP in the energy sector as reported on their electricity bills. The profits earned by the CSOP shares flow first to the CSOP trust to repay the loan. As the shares are paid for, they are distributed to their new consumer owners who then receive the full dividend yield as consumer-shareholders. They may designate the utility to apply this income to their monthly utility bill, thus creating a closed-loop feedback system linking supply and demand.

As the enterprise in which the CSOP is investing in general operates in a regulated market, where a government-appointed authority sets prices, the repayment risk for both the CSOP and its creditors is low (Gauche 2000). Market and price continuity are virtually assured. In the case of a CSOP in the RE sector, feed-in tariffs provide especially favorable credit terms. Once the investment is repaid off, profits from energy sales become dividends to shareholders. Thus consumer-shareholders now enjoy a second income source as new owners of productive capital. In cases of investment in an existing utility, the advantages of a CSOP include a

¹Regarding the plan participants the ESOP limited to the employees of the company is narrower while the GSOP involving citizens of a geographical region is wider.

stable anchor shareholder, as well as additional financial resources, which may be used for internal development or for other investments at low transaction costs. Moreover, due to a well-documented positive correlation between financial participation and participation in decision-making (Pendleton and Robinson 2010), the involvement of the consumer-shareholders could contribute to improved corporate governance and sustainable corporate strategy. Fully vested consumer-shareholders, moreover, have voting rights, which they may use to influence corporate policy and to improve the quality of service.

8.1.2 Successful Implementation: Valley Nitrogen Producers, Inc., 1958

Kelso implemented the first CSOP in 1958 in Fresno, California. Local farmers—the main consumers of fertilizer—utilized the CSOP to organize a new corporate entity for the production of anhydrous ammonia, Valley Nitrogen Producers Inc. (Kelso Institute 1976). Several large petro-chemical companies, who also set prices, controlled the fertilizer market at that time. Carl Haas, the founding president of Valley Nitrogen Producers, later explained that he took this initiative because the oil companies had been raising the price of anhydrous ammonia to a level—USD 250 per ton—which he considered exorbitant. He took the problem to business and corporate lawyer, Louis Kelso. Upon learning that Haas himself had no capital to invest, Kelso invented the CSOP and then persuaded the farmers of the Central Valley to become consumer-shareholders of this radically new kind of company.

Framework of the first CSOP—Although not a regulated public utility, Valley Nitrogen Producers Inc. had a utility's main characteristics. Central Valley farmers, as long-term consumers of fertilizer, were bound to their suppliers exactly as consumers of electricity, gas or water are bound to the suppliers of these necessities. As the need is constant, the relationship is secured by mutual dependency. The proposed corporation also met Kelso's other criteria for a CSOP (Kelso Institute 1976):

- The investment subscriptions were proportional to long-term needs for the product.
- The shares' subscriptions were acceptable to the bank.
- Limited corporate income tax.
- Investors contractually committed to buying fertilizer for the maximum period permitted by antitrust laws, in this case, seven years.
- The earnings of capital to be paid out fully and regularly to shareholders after debt amortization and operational costs.

Since the corporation, under tax regulations then in force, qualified as a farmer cooperative, income and dividends were tax-exempt, making the loan even more feasible. Nevertheless, when Kelso applied to the major banks for financing the first CSOP, initially asking for USD 20 million with an additional later installment of USD 100 million, to his amazement, the banks one after the other refused to make the loans. Finally Kelso persuaded the Berkeley Bank of Cooperatives, a cooperative bank, to finance Valley Nitrogen Producers as a cooperative even though it was not conventionally structured.

Implementation of the pilot model CSOP—The CSOP made 4580 farmers instant shareholders of the new fertilizer manufacturer, Valley Nitrogen Producers, Inc., an investment of USD 120 million (which inflation adjusted would equal today about EUR 915 million). Each farmer subscribed to buy the percentage of shares proportional to his fertilizer needs over a period of seven to ten years. He himself made no financial contribution. The CSOP was mainly secured by the bank loan from the Berkeley Bank of Cooperatives, which was backed in turn by the farmers' stock subscriptions. In the management board's report on the project nine years after its founding, a sample calculation for a typical shareholder was as follows (Valley Nitrogen Producers Inc. 1969):

- He subscribed shares valued at USD 19,095 and agreed that the dividend yield of these shares would be used to repay the Berkeley Bank of Cooperatives loans over a period of ten years.
- In turn he was entitled to USD 30,271 dividends during the first nine years of the plan.

- Of these dividends, USD 21,131 were paid out, of which USD 16,398 was used to pay down his subscription obligation with a remaining balance of USD 2697 for the last year of the plan.
- The difference between the dividends serving the principal and total payments, that is, USD 4733, was the farmer's interest payments for the loan financing the acquisition of his stock.
- Additionally, the farmer received the remaining portion of his dividends, that is, USD 9139 in the form of credits representing loans granted to the company during the last three years.
- This credit was used for the company's growth and geographical expansion. By 1978 Valley Nitrogen Producers Inc. had already four production facilities in California and one in Arizona, as well as a network of distributors in these two states (Stockton's Port Soundings 1978).
- Moreover, the long monopoly, which the big petro firms had maintained over the fertilizer industry in the Central Valley, was broken. The price of the top-selling fertilizer dropped from USD 250 to USD 66 per ton (Kelso Institute 1976).
- Even with this drastic price reduction, Valley Nitrogen Producers Inc. quickly became debt-free and profitable.

Dissemination of Kelso's financing techniques—The Valley Nitrogen CSOP not only created significant assets for 4580 farmer-shareholders, but according to estimates of the Kelso Institute, it also saved California farmers more than one billion dollars in fertilizer costs over a 15-year period, when fertilizer prices began to rise worldwide. The first CSOP was a great success—for the company, for its farmer-consumer-shareholders and for consumers in general—despite the fact that conditions were less than optimal. Unlike a utility, the company had to operate on an unregulated market. Today Kelso's best-known financing technique, the ESOP, is an integral part of corporate America. At the end of 2016, there were 6717 ESOP and 2898 ESOP-like plans in the USA, with about 14 million employees participating, that is, 13 percent of private sector employees holding around USD 1.3 trillion in assets (NCEO n.d.). The overwhelming majority of ESOPs are found in unlisted private companies (firms whose shares are not traded on public stock exchanges); in about 4500 companies, employees are majority

owners, and in about 3500, the ESOP holds 100 percent of the employer company's shares (ESOP Association n.d.). However, the Valley Nitrogen CSOP remained the only practical example of a classical CSOP implemented by Kelso.

8.2 Implementation of Renewable Energy CSOPs Today: The German Example

The CSOP was designed for regulated markets with guaranteed prices, regulated market access and long-term relationships between producer and consumer. Therefore the energy market is predetermined. A CSOP is particularly suitable for a RE plant, for example, a biogas reactor, a solar panel plant, a wind turbine or a geothermic drill, as the investment cost is relatively small. Implementation in large conglomerates would be more complicated. Not only would the investment cost be much larger, but the resistance of competitors, usually big quasi-monopoly energy companies, might be difficult to overcome. Moreover, while decentralization of energy production is a major trend across the EU member states, the CSOP could help achieve this goal in the RE sector, as it is naturally composed of small energy-producing units. By utilizing CSOPs regionally organized consumer associations could become energy producers. But residential communities could also initiate the construction of a power plant by means of this technique. Adequately financed, CSOPs are also suitable for larger projects. In the following, Germany as a pioneer of the energy transition is used as an example to illustrate the potential implementation of a renewable energy CSOP (Lowitzsch and Goebel 2013).

8.2.1 Factors for a Successful Implementation

The key element for successfully implementing an Energy CSOP is the active involvement of the beneficiary-consumers—in case of the investment in an existing utility together with professional energy producers—on the one hand and that of the commercial banks financing the

project on the other. Therefore, the participation of local and regional bodies, such as municipalities, communities or public institutions, acting as an intermediary between the CSOP investment and participating consumers and, if necessary, their representatives, is recommended. As for loan terms, it would be advisable to link the CSOP with an appropriate state support program, so as to provide banks, enterprises and consumers with institutional support for a concept still in its introductory phase. Political support and, if possible, tax concessions are desirable but not essential. Constituent contracts (statute, partnership agreement, etc.) stipulate the rights and obligations of the consumer-shareholders including provisions pertaining to purchase and sale of shares or termination of participation either through death or relocation; under either circumstance, CSOP participants should be obliged to sell their shares back to the CSOP trust. In order to prevent capital depletion, installment payments over a period of time would be appropriate. Consumer-shareholders' rights in the decision-making process are contingent on the number of shares owned. As a rule, a knowledgeable person capable of protecting their interests should represent shareholders.

Although the CSOP has many obvious advantages, some difficulties in its implementation have to be reckoned with. The first hurdle is potential opposition by major energy companies seeking to retain their monopoly control of the market. Although decentralization of energy production is a trend in current energy policy, the lobbyists of the big energy companies often pressure governments. In the case of larger CSOPs, it might be politically expedient to offer such companies an opportunity to participate. This might take the form of a credit guarantee to the CSOP similar to that made in the case of a company subsidiary or perhaps an investment in or a joint venture with the CSOP. Consumers, moreover, are a heterogeneous group. Public relations events together with an information campaign, which explains the purpose of the CSOP and how it works, can help to resolve the problem of innovation. Since education can be conducted through existing organizations and networks, these costs of CSOP implementation are comparable with those of conventional investments.

8.2.2 Legal Aspects of the Corporate Structure of CSOP-Financing and Taxation

The aim of the contractual model of the CSOP is above all to facilitate the application for a bank loan and to limit the liability of individual consumer-shareholders to no more than the value of their shares. Other important issues are easy tradability of the shares deferral of taxation of profits for the consumer-shareholders and pooling of voting rights. In the German CSOP model, the legal form of the intermediary entity, which administers the CSOP shares until their earnings have repaid the initial loan, is derived from the Anglo-American Common Law trust (Lowitzsch et al. 2012). In the absence of genuine trust legislation, this leads to a two-tier structure (see Fig. 8.1),² that is, a trust limited liability company (Trust-LLC) setting up a operating limited liability company (Operating LLC):

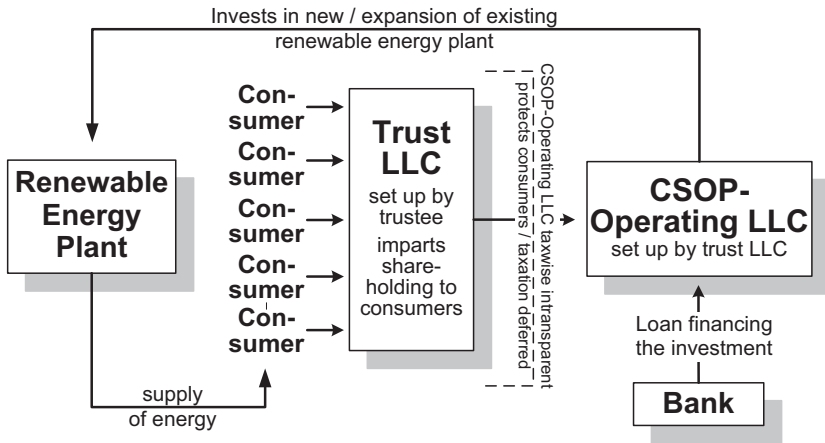


Fig. 8.1 Corporate structure of the German CSOP

²This structure is generally appropriate for countries without Common Law tradition.

- A trustee founds the Trust-LLC (with a nominal capital of EUR 25,000), while the consumers enter into a trust agreement and as trustors pay a capital contribution.
- The capital contribution similar to an “entrance ticket” (in our example EUR 250 per 50 families, i.e., EUR 12,500)³ is used as initial capital for the Trust-LLC founded by the trustee.
- The Trust-LLC in turn sets up the CSOP-Vehicle, that is, the CSOP-Operating LLC, as a 100 percent daughter company.
- Subsequently the CSOP-Operating LLC takes on the loan to invest in the new RE plant or to purchase shares of an existing one.

Facilitating shareholding of individual consumers under company law—To ensure easy tradability of the shares while avoiding transaction costs,⁴ the CSOP-Vehicle’s shareholding is facilitated through a trust company. Thus, consumer shareholding in the CSOP-Vehicle is “brokered” by a limited liability company (Trust-LLC); a trust agreement between the consumers and the Trust-LLC is sufficient to render consumer shares easily transferable⁵: It is the Trust-LLC which—entering into a trust agreement with the consumer-trustors—now holds the shares of the CSOP-Vehicle on behalf of them. In the event of a change of the consumer-shareholder, the buyer or heir simply steps into the trust agreement in lieu of the former trustor. Indirect share ownership using a separate intermediary entity, which manages the shares held in trust for the consumers and pools the voting rights executed by the trustee, has the additional advantage of a certain “professionalization” of management. Participation in decision-making in the energy utility is channeled

³Of the initial capital of EUR 25,000, only 50 percent, that is, EUR 12,500, actually need to be actually paid down.

⁴Direct shareholding in German limited liability companies has the disadvantage that the transfer of shareholders’ positions follows a formal procedure, that is, a notary’s acknowledgment of execution, which in turn increases transaction cost for the tradability of the shares.

⁵This structure is a standard solution in Germany tested many times by so-called public companies (“Publikumsgesellschaften”) in real estate investments, who face a similar problem: A very large number of investors is intended to participate in the equity of a company where every change in ownership, whether it be due to death, sale of shares or seizure, has to be signed into the commercial register following the relevant formal procedures.

through the trustee while individual consumer-shareholders may execute control rights on a supervisory board or an advisory council.

8.2.3 Taxation of the CSOP and Its Consumer-Shareholders

Deferred taxation for consumer-shareholders—Under German tax law, the Trust-LLC is treated “transparent”, that is, the shares of the CSOP-Operating LLC remain ownership of the consumer-shareholders, since they continue to be the beneficial owners of the CSOP-Operating LLC (§ 39 Abs. 2 Nr. 1 S. 2 AO). However, the standard trusteeship agreement stipulates that the consumer-shareholders cannot dispose of the shares held in trust until they are paid for and until they decide to leave the CSOP; such deferred taxation of the appreciation of their investment is guaranteed as taxation occurs not until the moment of being actually able to economically dispose thereof. In this way the parallel structure of the Trust-LLC holding the shares of the CSOP-Operating LLC ensures that only dividends paid out are taxed at the level of the consumer-shareholders, while the value of the appreciation of their shares is not taxed until they exit the plan.

Tax treatment of profits at the level of the CSOP-Operating LLC—The Operating LLC, being taxwise not transparent, shelters the consumer-shareholders with regard to profits at the level of the CSOP-Operating LLC: (1) The transaction is financed by bank loans with—if possible—preferred interest rates given by state development banks (IKB/KfW/EIB), for example, in the context of programs that specifically promote RE; (2) due to the financing cost of the leveraged investment, the CSOP-Operating LLC as a rule will make losses or in the best case very small profits throughout the first years; (3) pro rata profits/losses are either directly allocated to the CSOP-Operating LLC as sole shareholder in the case that it invests in a new facility or indirectly through dividend payments/depreciation of shares when investing in an existing incorporated utility. As the CSOP-Operating LLC normally will be an investment in a corporation, 5 percent of the dividends are taxed as corporate spending, while all refinancing costs are deductible as corporate expenses, which

results in 95 percent of paid-out dividends being tax-free at the level of the CSOP-Operating LLC (§§ 8b I and § 8b V of the German Corporate Tax Code apply). Such in both cases taxation of profits incurs only once at the level of the intermediary entity, that is, that of the CSOP-Operating LLC.

Tax treatment of the financing cost—In the case of RE projects with a comparable small investment, volume buying into an existing utility will be the exception; thus as a rule a project vehicle is set up and capitalized, in our case the CSOP-Operating LLC. With regard to leveraging this CSOP investment through capital credit, it is important that the bank loan is taken directly at the level of the CSOP-Operating LLC to install, for example, a wind turbine and that it is the CSOP-Operating LLC that repays the loan from its profits. Paying out profits to the Trust-LLC and thus to plan participants incurs only once the bank loan is repaid. As the CSOP-Operating LLC itself builds and runs the newly installed facility and profits/losses incur directly with the CSOP-Operating LLC, both deduction of interest payments and depreciations and carry forward of losses can be used to lower the tax burden increase liquidity and thus accelerate principal payments.

When the CSOP-Operating LLC makes a leveraged investment in an existing incorporated utility, the treatment of interest payments is less advantageous. They incur at the level of the CSOP-Operating LLC but not at that of the utility where they would lower the tax burden and would generate liquidity to repay principal. As a rule the CSOP-Operating LLC will make losses or—if at all—very small profits throughout the first years as the deductible financing cost (interest on the bank loan) is not met by any taxable income. Of course, the CSOP-Operating LLC must serve both interest and principal of the bank loan and thus generate more income than necessary to cover the cost of financing (otherwise it could never repay the loan), but CSOP dividends are as mentioned above not taxed with the exception of 5 percent.⁶

⁶Thus double taxation in general is avoided, and the CSOP-Operating LLC generates a tax shield for the consumer-shareholders, which, however, has only limited benefits here. Nevertheless, the benefits of the first scenario, that is, to accelerate principal payments, can be achieved by a debt pushdown through a merger of the CSOP-Operating LLC with the target utility.

8.2.4 Conditions for Implementation

Economic and political conditions—The German RE sector is the worldwide leader in the installed solar power capacity and on the second place with regard to the wind power.⁷ In 2016 around 42 percent of the plants belonged to private persons (31.5 percent private individuals, 11 percent farmers), 14.4 percent of them were in the hands of project planners, 13.4 percent of funds and banks and 13.4 percent of commercial enterprises; only 5.4 percent belonged to the “big four” energy suppliers (E.ON, RWE, EnBW and Vattenfall), 10.3 percent to both regional and international energy suppliers and 1 percent to others (trend:research and Leuphana Universität Lüneburg 2017). A strive to decentralize the energy supplies constitutes perfect conditions for the CSOP, as its implementation is in smaller investments easier and more efficient. In contrast to conventional energy resources, RE production is based on small power plants, for which the CSOP-financing is particularly suitable. The parallel development of technology for storage and power grid, such as “smart grids” and “virtual power plants”, ensures more effective and profitable energy production from such investments. In view of the German government’s objective to increase the share of RES in the final consumption to 60 percent by 2050 and the share of renewable in the electricity production to 35 percent by 2020 and 80 percent by 2050,⁸ this trend will definitely continue.

Funding options—To structure the loan necessary for CSOP implementation, the following sources (in various financing variants) are available:

- European programs promoting energy policy, such as the Program Connecting Europe Facility (focus on energy infrastructure), European Energy Efficiency Fund (EEF) and others

⁷“Aktuelle Daten und Fakten—Erneuerbare Energien”, <http://www.unendlich-viel-energie.de/de/wirtschaftlaktuelle-daten-und-fakten.html>, [login 3.04.2013].

⁸“Erneuerbare Energien—ein neues Zeitalter hat begonnen”, http://www.bundesregierung.de/Webs/Breg/DE/Themen/Energiekonzept/Energieversorgung/ErneuerbareEnergien-Zeitalter/_node.html, [login 3.04.2013].

- EU programs to support SMEs, for example, the Competitiveness of Enterprises and Small and Medium-sized Enterprises (SMEs) running from 2014 to 2020 (COSME)
- Funds from EU regional policy (the Structural Funds and the Cohesion Fund)
- Financial assets from the European Investment Bank (EIB) or the European Bank for Reconstruction and Development (EBRD)
- German federal and states government’s development programs, such as KfW program “Renewable Energy Standard” (“Erneuerbare Energien Standard”, No. 270)
- The previously mentioned in combination with private investments

Phasing of the CSOP investment—Against this background, the CSOP-financing of a RE plant has the following steps (see Fig. 8.2):

- Setting up of a trust vehicle (here a fiduciary LLC) administrating the consumers’ accounts; share capital is contributed by the participating households.

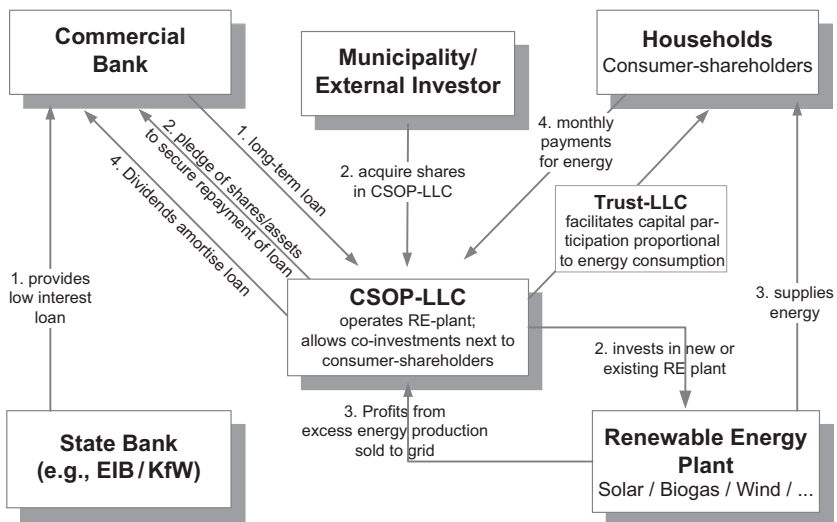


Fig. 8.2 Financing of a RE facility through a Consumer Stock Ownership Plan

- Completion of trust agreements (trustee/consumers) defining the value of their share in the CSOP corresponding to the energy consumption of each household.
- Setting up of an intermediary entity, the CSOP-Operating LLC (100 percent daughter of the fiduciary LLC), which invests in an existing or a new energy plant.
- Completion of supply agreements between consumers and the CSOP-Operating LLC, designed according to standard energy contracts with the usual conditions.
- The CSOP-Operating LLC applies for a bank loan (here to KfW) and provides collateral to secure the loan.
- Repayment of loan: Interest and principal are serviced by revenues from the sale of the power plant's surplus energy production and each household's monthly payments for energy.
- After the repayment of the capital acquisition loan, profits from the power plant are paid to the consumer-shareholders as dividends in proportion to the amount of their shares.

8.3 Overview of the Advantages of the Renewable Energy CSOP

Decentralization of energy production enhances in particular energy security, efficiency and stability of deliveries, all aims the CSOP potentially contributes to. The diversification of energy resources amplifies this effect, and such further improves national energy security. Moreover a growing share of RES in energy consumption reduces dependency on energy imports from other countries. Finally, competitiveness among energy companies improves, positively influencing the development of the whole energy sector. Finally, the technological development in RE has a potential to reduce electricity costs (Mühlenhoff 2011) and to improve energy efficiency of power plants. However, this potential can only be harnessed with the involvement of citizens. Today, both the new installation of RE plants—especially in the case of wind power—and the expansion of the energy grid, a prerequisite to increase the share of renewables due to their volatility, are still hampered by a general lack of public acceptance of infrastructure

projects (Puka and Szulecki 2014). In particular with regard to new grids, the burden of the investment is to a large part transferred to the consumers who will pay for the grids through tariffs exacerbating the problem of societal acceptance (Kogdenko 2013). In this regard the CSOP can contribute to increase acceptance by turning CSOP participants into (co-)owners with a vested interest in local energy facilities and a solid grid.

As the consumer-shareholder's additional income will most likely be spent in their place of residence for consumption purposes, positive impulses for the economic growth of the region can be expected. Thus at the regional level, above all, the regional economy and indirectly the whole community benefit from the CSOP. Furthermore, access to the acquisition of productive capital through the CSOP provides citizens with the opportunity of asset formation. Such a wider distribution of productive property among citizens has a long-term positive impact on growth, stability and international competitiveness of the economy. Finally, the RE sector in Germany already in 2013 employed more than 380,000 people (Röttgen 2013). Such an implementation of CSOPs and thereby the expansion of RE installations create new jobs.

8.3.1 Involving Citizens in Local RES Projects with the Option to Include Municipalities and Commercial Investors

The CSOP is explicitly aimed at involving citizens in local RE projects with the option to include municipalities and commercial investors—The “local” reference is not determined by the business model per se but by its design; rooting the CSOP in the local community will increase acceptance of RE projects as the concept is open to all citizens independent of their income. Instead of being solely profit-oriented as, for example, bonds or silent partnerships, it is precisely the ownership-oriented participatory approach also in decision-making that distinguishes the CSOP from conventional investment models.⁹ This approach facilitates

⁹ However, even some energy cooperatives lack the local reference, an example in Germany being Greenpeace Energy, where 110,715 electricity customers, 9280 gas customers and 22,841 members are involved.

the involvement of municipalities as a pacemaker of the energy transition. Other than bringing together the interests of local citizens, this is an important prerequisite for preferential conditions when participating in auctions for which the new EEG 2017 now requires a minimum of 10 percent participation of municipalities.¹⁰ With regard to cooperatives, for example, the necessity of representation on management and supervisory bodies has been reported an obstacle as coop law does not acknowledge a right of delegation familiar to legislation on joint stock companies. This is of particular importance with regard to public procurement law and the possibility of in-house arrangements (Teckal criteria of the ECJ).

The (optional) inclusion of minority or majority stakes of commercial investors in itself is nothing new, as citizen's energy models in the wind sector in the legal form of a limited partnership often collaborate with professional partners. Depending on the underlying technology, it may be very useful to include professional operators, as operation and maintenance of infrastructure can be very complex; this concerns wind energy and especially bioenergy (Holstenkamp et al. 2017).

8.3.2 Modernizing and Extending the Cooperative Model

The cooperative model has been around since the nineteenth century and can be extended and modernized as a business and organizational model to meet the challenges in the RE sector (Herbes et al. 2017). In contrast to cooperatives, the CSOP allows the involvement of strategic partners and public authorities, for example, local municipalities. Furthermore, it avoids obstacles related to the principle that the members of the management consist of cooperative members and to the question of representation of municipalities on the board (see Chap. 7). Of course, members of an energy cooperative itself can participate in a CSOP when expanding an existing facility together with strategic partners. Regarding the exercise of

¹⁰In particular municipal law typically stipulates four main prerequisites for participation of municipalities in RE projects, that is, public purpose, capacities for the investment, subsidiarity and appropriate representation.

the consumer's voting rights, the CSOP offers flexibility. The articles of partnership may stipulate which subjects are to be deliberated either by the trustee or by CSOP members. As a rule the CSOP will hold more than 50 percent of the shares in the ltd. operating the RE facility and thus will have control. Finally, as mentioned the CSOP business model has particular features and advantages (leveraged financing), which enable the participation of groups that are neglected so far.

At the same time, the CSOPs can enable consumers of energy utilities without savings or access to capital credit to acquire productive property of RE plants. At the microlevel all actors benefit from the CSOP, that is, consumers and their local community as well as energy companies, should they be involved. While the monthly payments of the consumer-shareholders for their energy bill are initially used to service the acquisition loan, they cease to be necessary once that loan is repaid. By then the consumers have become (co-)owners of the power plant which covers their future electricity consumption. From now on the proceeds from the sale of the surplus energy production to the grid provide CSOP shareholders with an additional income from ownership of productive capital. Furthermore, as shareholders consumers influence the corporate governance of the utility and thus have the possibility to actively influence their nearest environment. If an energy company is involved, it can benefit from external capital for investment at relatively low cost and the loyalty of its consumer-shareholders.

8.3.3 Advantages in Administration and Delineation to Other Existing Models on the "Grey Market"

The administration of the shares by a trustee (ltd) while avoiding personal liability of participating citizens also allows a minimization of transaction costs and more flexibility with regard to (1) share transfers (notarial documentation but no registration in the Register of Commerce), (2) share distribution (allocated according to the consumption of each CSOP participant) and (3) tax liability esp. for low-income households providing for deferred taxation of the benefit. As regards the financing technique, consumer ownership conveyed by a CSOP does not qualify for the

“grey market” and is therefore not covered by the regulations of the new capital investment legislation. It is a form of investment, where the CSOP will only invest in one local project and then—in contrast to investment funds—operates the RE plant on its own and is therefore operationally active outside of the financial sector. Therefore, for example, the German Capital Investment Law does not apply; neither is the German Asset Investment Law applicable to CSOPs as the latter is not a public offer with regard to the restricted group of persons targeted—that is, the particularity of the energy consumers living in the location the energy plant is to be operated in. In contrast to the YieldCo model, the shares are not tradable in the financial markets. Furthermore, the CSOP Ltd. holds at least 50 percent of the energy plant shares, which she administrates effectively.

8.4 Outlook: The 2018 Renewable Energy Directive as a EU-Wide Legal Basis for CSOPs

The Renewable Energy Directive II compromise reached in June 2018 confirms both fair conditions for self-consumption and collective local organization thereof. It not only introduces a “right to prosume” and the right to market generated energy directly (Art. 21 RED II) but a framework to facilitate “renewable energy communities” (Art. 22 RED II). RED II will provide an EU-wide legal framework for CSOPs as contractual arrangements that allow pooling and scaling of RE investments (co-) owned by consumers while opening them up to various combinations of municipal or commercial investment, especially by SMEs. And indeed, the newly introduced “renewable energy communities” (regulated in Art. 22 RED II) require that local shareholders or members, that is, “natural persons, local authorities, including municipalities, or SMEs”, control them as defined in Art. 2 of RED II. This necessitates a multipurpose corporate vehicle like the CSOP allowing joint investments by the agents mentioned.

References

- Ashford, R. A. H. (1994). The binary economics of Louis Kelso: A democratic private property system for growth and justice. In J. H. Miller (Hrsg.), *Curing world poverty: The new role of property, social justice review* (pp. 101–102).
- BVerfGE. (1993). Rulings of the German Federal Constitutional Court, case of 26 May 1993 concerning the possession of rented apartments, BVerfGE, Vol. 89, p. 1ff, esp. p. 6; see compare also BVerfGE, Vol. 24, p. 267ff, esp. 389; Vol. 50, p. 290ff, esp. 339; Vol. 53, p. 257ff, esp. 289.
- ESOP Association. (n.d.). ESOP statistics. Retrieved May 5, 2017, from http://www.esopassociation.org/medialmedia_statistics.asp.
- Gauche, J. N. (2000). Binary economic models for the privatization of public assets. *Journal of Socio-Economics*, 8. Retrieved April 10, 2013, from <http://www.kelsoinstitute.org/pdfbinaryeconomicmodes.pdf>.
- Herbes, C., Brummer, V., Rognli, J., Blazejewski, S., & Gericke, N. (2017). Responding to policy change: New business models for renewable energy cooperatives—barriers perceived by cooperatives' members. *Energy Policy*, 109, 82–95.
- Holstenkamp, L., Centgraf, S., Dorniok, D., Kahla, F., Masson, T., Müller, J. R., Radtke, J., & Yildiz, Ö. (2017). Bürgerenergiegesellschaften in Deutschland. In L. Holstenkamp & J. Radtke (Eds.), *Handbuch Energiewende und Partizipation* (pp. 1057–1076). Wiesbaden: Springer.
- Kelso, L. O. (1989, October/November/December). Why I invented the ESOP LBO. *Leaders*, 12(4).
- Kelso Institute. (1976, November 8). *Documentation*. Valley Nitrogen Producers, Inc.
- Kogdenko, N. (2013). Public acceptance: Why does it frequently become a 'show stopper'? *EDI Quarterly*, 4(4), 16–17.
- Lowitzsch, J. (2017). Community participation and sustainable investment in city projects: The Berlin water consumer stock ownership plan. *Journal of Urban Regeneration & Renewal*, 10(2), 138–151.
- Lowitzsch, J., & Goebel, K. (2013). Vom Verbraucher zum Energieproduzenten. Finanzierung dezentraler Energieproduktion unter Beteiligung der Bürgern mittels sog. *Consumer Stock Ownership Plans*, *Zeitschrift für neues Energierecht*, Heft 3, 237–244.
- Lowitzsch, J., Kudert, S., & Neusel, T. (2012). *Legal opinion on the German trust model*. Viadrina working paper.

- Mühlenhoff, J. (2011, September). Kosten und Preise für Strom Fossile, Atomstrom und Erneuerbare Energien im Vergleich, Hintergrundinformation der Agentur für Erneuerbare Energien Renewables Spezial Ausgabe 52 I.
- NCEO. (n.d.). NCEO statistics. Retrieved May 5, 2017, from <http://www.nceo.org/articles/esops-by-the-numbers>.
- Pendleton, A., & Robinson, A. (2010). Employee stock ownership, involvement, and productivity: An interaction-based approach. *Industrial and Labor Relations Review*, 64(1), 3–29.
- Puka, L., & Szulecki, K. (2014). *Beyond the “Grid-Lock” in electricity interconnectors*. DIW Discussion Papers 1378, p. 12 ff 4.3. Why financing is not a major impediment.
- Röttgen, N. (2013). Energiewende schafft neue Chancen auf dem Arbeitsmarkt, March 26, 2012. Retrieved April 11, 2013, from <http://www.bmu.de/bmu/presse-reden/pressemitteilungen/pm/artikel/erneuerbare-energien-geben-in-deutschland-bereits-mehr-als-380000-menschen-arbeit/>.
- Stockton’s Port Soundings. (1978, June). *Valley Nitrogen Names Lindley*, 1(7). trend:research/Leuphana
- Universität Lüneburg. (2017). *Definition und Marktanalyse von Bürgerenergie in Deutschland (Studie im Auftrag der Initiative “Die Wende—Energie in Bürgerhand” und der Agentur für Erneuerbare Energien)*. Bremen and Lüneburg: trend:research and Leuphana Universität Lüneburg.
- Valley Nitrogen Producers Inc. (1969). Announcement of the chairman of the Valley Nitrogen Producers Inc. Carl H. Hass to the stakeholders on 27, June.