



Marketable Permits

Committee of the Whole

Proposed Recommendation from Committee of the Whole | October 25, 2017

1 Marketable permits are a type of government-created license that regulates the level of a
2 particular activity.¹ Often, they ration the use of a resource (for instance, clean air by limiting
3 pollution, fisheries by limiting fish catch, or the electromagnetic spectrum by allocating it among
4 various uses), but they may also be used to satisfy affirmative obligations to engage in an activity
5 (such as requirements to produce renewable energy). Marketable permits are distinguishable
6 from other regulatory permits in that they can be bought or sold independently of any real
7 property or other interest.² Because marketable permits are alienable, it is particularly important
8 to define their longevity and the privileges conveyed by their ownership, so that parties will
9 understand exactly what it is that they are purchasing.

10 Marketable permitting programs generally fall into one of three types.³ In “cap-and-
11 trade” programs, regulators set a limit, or cap, on the total amount of activity that can take place.
12 For example, the cap could be total tons of a pollutant, total number of fish that can be caught, or
13 total number of airport landing slots. A “rate-based trading” program is similar, but instead of

¹ See Jason Schwartz, *Marketable Permits: Recommendations on Application and Management* ii (Mar. 15, 2017), <https://www.acus.gov/sites/default/files/documents/marketable-permits-draft-report.pdf>.

² In 2015, the Administrative Conference issued recommendations on the design and tailoring of regulatory permits generally, which are defined as “any administrative agency’s statutorily authorized, discretionary, judicially reviewable granting of permission to do something which would otherwise be statutorily prohibited.” Administrative Conference of the United States, Recommendation 2015-4, *Designing Federal Permitting Programs*, 80 Fed. Reg. 78,164 (Dec. 16, 2015).

³ Many of the examples in this Recommendation are drawn from marketable permitting programs in the environmental context because a significant amount of the experience and writing to date regarding marketable permitting programs stems from the environmental area. This is not meant to imply that marketable permits are not suitable in other contexts, nor that they are always useful in environmental contexts.



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14 capping the total amount of a regulated activity, agencies limit the relative amount of activity per
15 regulated entity or unit of regulated activity. For example, a rate-based air pollution permit
16 market may limit the amount of pollution power plants can emit per unit of electricity generated,
17 and fuel efficiency standards set limits on the acceptable amount of fuel required to drive a mile.
18 Finally, in “credit trading” systems, regulators set a relative goal (e.g., no net emissions increase
19 or no net increase in property development); and then any covered entities seeking, for example,
20 to increase emissions or develop property must purchase offsetting credits that are sold by third
21 parties and verified by regulators. Credits can be earned when parties limit their level of the
22 regulated activity by more than the required amount. Credit systems can also be combined with
23 cap-and-trade or rate-based programs. For example, in a greenhouse gas cap-and-trade program,
24 unregulated sources may be allowed to reduce their emissions voluntarily and sell verified
25 credits on the market. In a property development setting, a party could decline to develop a
26 particular parcel of land to generate a credit, and then sell that credit to another party.

Establishing a Marketable Permitting Program

27 Like other agency activities, marketable permitting programs must be within the agency’s
28 statutory authority. But even when an agency has statutory discretion to use a marketable
29 permitting program, such a program may not be the most suitable regulatory tool to achieve an
30 agency’s goal. Marketable permitting programs are more likely to be suitable when:

- 31 • The agency can clearly define the privileges or obligations to be assigned by the program
32 and has the necessary information to set the level of regulated activity.
- 33 • The agency has sufficient resources to design and administer the program and is capable
34 of reevaluating the appropriate target level of activity over time.
- 35 • The agency finds it difficult or expensive to discern compliance costs for individual
36 regulated parties. This often occurs when the activity to be regulated is conducted by
37 numerous heterogeneous or small sources, or when there are as yet unrealized
38 opportunities for significant technological developments by actors other than those upon
39 whom the regulatory obligations fall.



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- 40 • The agency is reasonably confident that a robust market is feasible. This requires interest
41 and participation by regulated entities that have, or are capable of developing, sufficient
42 knowledge to make efficient decisions in the market.
- 43 • Regulated parties have sufficiently differing compliance costs, such that the savings from
44 trading are likely to be greater than transaction costs.
- 45 • The agency cares more about overall level of an activity than the identity or location of
46 the actors engaging in the activity. Alternatively, a marketable permit system could take
47 locational differences into account in its structure, by, for example, setting prices so that
48 it costs more to buy permits in a place where marginal benefits of cutbacks are high.⁴

49 Marketable permitting programs are less likely to be suitable when:

- 50 • The balance of factors listed above is not favorable.
- 51 • The risk of unintended consequences from trading, such as the potential for highly
52 localized problems, is difficult to manage.

53 Once an agency has decided to create a marketable permitting program, it must consider
54 how to establish it. Many agencies have used notice-and-comment rulemaking when creating a
55 marketable permitting regime.⁵ In a handful of instances, agencies have established marketable
56 permitting programs through guidance documents.⁶ Since agencies cannot impose legally
57 binding obligations through guidance documents,⁷ this latter approach can lead to some
58 uncertainty among existing and prospective permittees and even agency officials as to the
59 permanence of the program.⁸ While notice-and-comment rulemaking has costs, it also has the

⁴ For example, as with sulphur dioxide emissions from the Midwest which affect the East Coast and emissions from the East Coast which mostly blow out to sea.

⁵ Schwartz, *supra* note 1, at 27.

⁶ *Id.*

⁷ Chrysler Corp. v. Brown, 441 U.S. 281, 301–02 (1979).

⁸ Schwartz, *supra* note 1, at 27.



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60 virtue of soliciting stakeholder input while a rule is being shaped.⁹ Public input can be beneficial
61 in determining whether a particular activity lends itself to regulation via a marketable permitting
62 regime and, if so, how the program should be designed so as to best serve the public interest.

Allocating Permits

63 Once a marketable permitting program has been established, permits will need to be
64 distributed. The initial allocation of permits is referred to as the “primary market” for permits.¹⁰
65 Agencies typically develop systems and regulations to allocate and keep track of permits and to
66 verify their ultimate retirement, under their authority to implement the underlying permitting
67 program.

68 Agencies predominantly follow one of two approaches in distributing permits: historical-
69 based allocations and auctions. Historical-based allocations distribute permits based on
70 historical use of the regulated activity. This method is typically used to avoid disruptions to the
71 status quo, to protect returns on past investments, and to ease tensions with the regulated industry
72 and gain political support. However, it may also reward parties for engaging in activity that the
73 agency now wants to curb, increase the risk of monopolies in the permit market, reduce the
74 incentive to innovate, and incentivize undesirable strategic behavior, like a firm artificially
75 inflating its use of a resource ahead of an allocation benchmark to increase its share of allocated
76 permits.¹¹

⁹ The Conference has long advised use of notice-and-comment even where it is not a legal requirement. *See, e.g.*, Administrative Conference of the United States, Recommendation 2012-2, *Midnight Rules*, 77 Fed. Reg. 47,801 (August 12, 2012); Recommendation 1992-1, *The Procedural and Practice Exemption from the APA Notice-and-Comment Rulemaking Requirements*, 57 Fed. Reg. 30,102 (July 8, 1992); Recommendation 1982-2, *Resolving Disputes Under Federal Grant Programs*, 47 Fed. Reg. 30,704 (July 15, 1982).

¹⁰ *See* INTERAGENCY WORKING GRP. FOR THE STUDY ON OVERSIGHT OF CARBON MKTS., REPORT ON THE OVERSIGHT OF EXISTING AND PROSPECTIVE CARBON MARKETS CARBON STUDY 12 (2011) (describing the primary market as the entry point for permits, whether entry occurs as a result of the government distributing permits directly to market participants, auctioning permits, or some combination of the two).

¹¹ T.H. TIETENBERG, EMISSIONS TRADING: PRINCIPLES AND PRACTICE 138–39 (2d ed. 2006).



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77 By comparison, distributing permits through auctions reduces the barriers to entry to the
78 regulated activity. Auctions also tend to lower the risk of monopolies and strategic behavior,
79 facilitate price discovery, and prevent undue windfalls. However, auctions can be challenging to
80 administer, especially for agencies without prior experience in doing so, and may require
81 significant resources upfront to design and implement.¹²

82 There are also several other, less common ways of conducting initial permit allocation
83 that may be useful in certain specialized contexts. These include output-based allocations,¹³
84 allocating permits to particular communities,¹⁴ or allocating permits based on other policy
85 objectives.

86 In deciding how to allocate permits, agencies must make two additional important
87 decisions. The first is to decide who is eligible to purchase permits. Some agencies restrict the
88 buying and selling of permits to regulated entities, whereas others allow non-regulated parties—
89 such as brokers, speculators, market facilitators, or the general public—to purchase permits.
90 Allowing access to the market for permits to a wider range of parties can promote market
91 liquidity and facilitate efficient price discovery, though it also increases the risk of market
92 participants trying to “corner the market” (amassing permits to control prices). Allowing
93 unregulated parties to buy permits and retire them also allows the public to decrease the level of
94 the cap.

95 The second is whether to hold a pool of permits in reserve for future entrants. Once the
96 initial allocation of permits has taken place, in the absence of competitive markets, permit

¹² Peter Cramton & Jesse Schwartz, *Collusive Bidding: Lessons from the FCC Spectrum Auctions*, 17 J. REG. ECON. 229 (2000).

¹³ Often proposed in marketable permitting programs that regulate electricity generators, output-based allocation distributes permits for pollution based on the amount of electricity produced by a given party, as opposed to the historical amount of pollution that party generated. This results in awarding permits to some of the cleanest producers of electricity, like renewable energy, rather than disproportionately to the most heavily polluting producers. PROJECT ON ALT. REGULATION, MARKETABLE RIGHTS: A PRACTICAL GUIDE TO THE USE OF MARKETABLE RIGHTS AS A REGULATORY ALTERNATIVE 14 (1981).

¹⁴ For instance, tradable fish catch shares are sometimes allocated directly to native communities to enable them to protect their interests.



97 holders may have an incentive to impede purchases from potential new competitors.¹⁵ Agencies
98 have sometimes addressed this barrier to entry by creating a reserve pool of permits for new
99 entrants. Some agencies have also instituted similar mechanisms for introducing permits into the
100 market in the wake of large economic changes or emergencies that heavily drive demand for
101 permits.

Overseeing a Marketable Permitting Program

102 Once initial permit distribution has occurred, agencies will want to ensure that parties
103 comply with any obligations that arise under their permits. Monitoring ongoing performance is
104 essential to achieving compliance with permit obligations. This includes tracking ownership of
105 permits through their lifecycle, tracking the amount of regulated activity by permit holders, and
106 verifying that credits represent real offsets of regulated activity. Agencies often conduct
107 compliance monitoring themselves, but sometimes rely on self-verification by regulated parties
108 or use third parties to verify compliance.¹⁶

109 In the event that regulated parties engage in more of the regulated activity than their
110 permits allow, agencies have several enforcement tools.¹⁷ For instance, agencies can require
111 parties to buy additional permits until their use is in compliance with the number of permits they
112 possess and can require parties to develop plans to ensure future compliance. Agencies can also
113 impose sanctions. There is evidence that compliant parties are more supportive of enforcement

¹⁵ For example, airlines in possession of valuable landing slots have an incentive to retain the slots for possible future ridership, rather than deciding to sell the slots to a potential new competitor.

¹⁶ In some marketable permitting programs, monitoring has been accomplished by spot checking only a small percentage of permit holders. On the other end of the spectrum, some programs require extensive measures such as third-party audits of all permits or credits annually or every few years.

¹⁷ An example of a program that has achieved near perfect compliance is the acid rain market. It features a sophisticated monitoring system that tracks pollution allowance holdings and compares them at the end of the compliance period to total emissions registered in an emissions monitoring system. It also includes stiff penalties fixed to inflation per excess ton of pollutant discharged and imposes a requirement to submit a plan for how excess emissions will be offset in future years. Schwartz, *supra* note 1, at 64.



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114 in marketable permitting programs because noncompliance by other parties lowers the value of
115 their allowances.¹⁸

116 Compliance monitoring and enforcement are important aspects of ensuring the integrity
117 of a marketable permitting program. Another involves overseeing secondary and derivative
118 markets that may emerge, with or without government assistance, following the initial allocation
119 of permits. The secondary market for permits involves transactions in which permits are bought
120 and sold following their initial entry into commerce in the primary market. This is in contrast to
121 derivative markets, which are primarily risk management and price discovery markets where
122 actual transfer of permits might not occur.¹⁹ Trading in secondary and derivative markets can be
123 accomplished through (1) negotiations between buyers and sellers—which may or may not be
124 facilitated by third parties (these are known as over-the-counter transactions) or (2) exchanges,
125 which match buyers and sellers in standardized transactions.²⁰

126 The authority to oversee trading on secondary markets is somewhat fragmented and
127 authority over marketable permit programs is not always well defined and would benefit from
128 clarification. The Commodity Futures Trading Commission (CFTC) has broad enforcement
129 authority to pursue manipulation of the price of a commodity in interstate commerce.²¹ It also
130 has the authority to surveil spot trading (sales for the immediate delivery of a commodity)

¹⁸ For example, in many fishery and catch share programs, fishers are reportedly more cooperative with enforcement officials after the introduction of a marketable permitting program, recognizing that illegal fishing reduces the value of their quota. Tom Tietenberg, *Tradable Permits in Principle and Practice*, 14 PENN. ST. ENVTL. L. REV. 251, 260 (2006).

¹⁹ Derivatives are contracts or instruments based on the value of another financial or economic interest or property and are used for hedging and speculation. A derivative of a marketable permit would be a contract or instrument based on the value of the permit. Hedging allows the transfer of market risks to parties more capable of assuming it. Speculation involves attempting to earn profit by anticipating price movements or taking advantage of a perceived mispricing. Commonly traded types of derivative contracts include futures, options, and swaps.

²⁰ INTERAGENCY WORKING GRP. FOR THE STUDY ON OVERSIGHT OF CARBON MKTS., *supra* note 10, at 14.

²¹ *See id.* at 43 (“Because the CFTC has broad enforcement authority to pursue manipulation of a commodity’s price in interstate commerce, the agency would have the authority to bring actions against individuals or entities believed to be involved in the price manipulation of allowance and carbon offsets.”).



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131 conducted on exchanges.²² However, the CFTC only rarely brings enforcement actions for fraud
132 in spot markets. The Federal Trade Commission (FTC)—under its authority to act against
133 unfair, anticompetitive, and deceptive practices affecting commerce—and the Department of
134 Justice—under its antitrust authority—also have some authority over secondary permit markets,
135 though they have had limited involvement with marketable permitting programs to date.
136 Individual agencies’ ability to oversee secondary markets will depend on their statutory
137 authority; but even when they do have such authority, they may lack the expertise or resources to
138 routinely monitor trading in these markets.

139 Authority to oversee derivative markets is largely vested in the CFTC.²³ It oversees
140 derivatives traded in exchanges, which must publish certain kinds of trading information that
141 would allow the CFTC to detect fraud and manipulation. The CFTC also has authority to
142 oversee over-the-counter transactions. The CFTC’s authority over derivative markets, and
143 particularly over-the-counter derivative transactions, was strengthened by the Dodd-Frank Wall
144 Street Reform and Consumer Protection Act.²⁴

145 Agencies with authority to oversee permit markets have various tools to combat fraud,
146 manipulation, and price volatility, all of which can undermine economic efficiency and erode
147 confidence in permit markets. Fraud and manipulation can be addressed through various
148 mechanisms, such as position limits, accountability triggers, market surveillance, and reporting
149 requirements. Position limits can be used to ensure that no single party or combination of parties
150 can control the supply of permits to the point of dictating prices. Position accountability triggers,
151 which require permit holders wishing to exceed a certain threshold of permits to submit to
152 additional reporting and oversight, can likewise be used to prevent hoarding of permits.

²² For example, the CFTC oversees trading of permits for the Regional Greenhouse Gas Initiative and the acid rain market on exchanges like the Chicago Climate Futures Exchange.

²³ INTERAGENCY WORKING GRP. FOR THE STUDY ON OVERSIGHT OF CARBON MKTS., *supra* note 10, at 44, 51. The Securities and Exchange Commission has authority over securities and securities based swaps.

²⁴ *See* Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. Law No. 111-203, 124 Stat. 1376 (2010). Certain activities involving derivatives may be exempt from CFTC oversight, but CFTC has the statutory authority to eliminate many of those exemptions and to provide comprehensive oversight of derivatives in permit markets. Schwartz, *supra* note 1, at 76.



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153 Effective surveillance of markets and robust reporting requirements also discourage fraudulent
154 activity.

155 Price volatility can occur in marketable permitting programs even without fraudulent
156 activity, particularly in smaller, less robust markets with fewer participants, due to unexpected
157 increases in demand or the costs of compliance. Volatility increases the risk of noncompliance
158 and decreases confidence in the market system. Tools to address volatility include circuit
159 breakers, which limit how much prices can rise or fall in a given period, and safety valves, which
160 can set maximum or minimum prices or release reserve credits into the market in case of
161 emergencies or demand spikes. Another way to reduce volatility is to issue permits with
162 different durations. Finally, by defining a broader program that covers more entities under a
163 single market, agencies can diversify the portfolio of permit seekers, reducing the risk of
164 unexpectedly high cost in an isolated sector. Any individual regulated sector can experience
165 unexpected compliance costs as economic conditions change; a broader market offers more
166 flexibility, better absorbs price volatility, and so increases certainty for regulated parties and
167 investors.

168 Because permit markets rely heavily on the decisions of both the agency and permit
169 buyers, facilitating the flow of information is an extremely important part of a marketable
170 permitting program. Making data on permit transactions, prices, and holdings publicly available
171 can help the agency and the public assess the efficacy of the program. It also enables smooth
172 operation of the permit markets by enabling permit buyers to better evaluate the value of the
173 permits. Having clear communication policies for announcing policy changes or enforcement
174 actions that could influence the market prevents pre-publication leaks and information
175 asymmetries that could unjustly benefit some parties and undermine the permit market.

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176 This Recommendation does not address whether agencies should increase or reduce their
177 usage of marketable permitting programs or speak to the substantive areas in which such
178 programs may be desirable. Rather, the Conference acknowledges that agencies have been



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179 directed to consider marketable permits, consistent with any applicable statutory requirements, as
180 one possible mode of regulation and seeks to identify the key considerations in assessing
181 marketable permits as a potential alternative.²⁵ This Recommendation highlights best practices
182 that agencies should consider in designing a marketable permitting program.

RECOMMENDATION

Establishing a Marketable Permitting Program

- 183 1. When designing a marketable permitting program, agencies should carefully consider
184 whether such a program will best achieve their policy objectives, and, if so, whether the
185 agency's goals would be better served by using a cap-and-trade, rate-based, or credit
186 trading system or a combination of the above.
- 187 2. Agencies should establish clear expectations as to the longevity of marketable permits
188 and the precise obligations or authorizations that they convey.
- 189 3. Agencies should generally consider using notice-and-comment rulemaking when creating
190 a marketable permitting regime, both in order to reduce uncertainty as to the permanence
191 of the program and to gather public input that may prove beneficial in shaping the
192 program.
- 193 4. Agencies should consider whether to allow non-regulated parties to buy and sell permits.
194 Allowing a broader range of parties to trade permits can promote market liquidity,
195 facilitate efficient price discovery, and allow everyone with a stake in the outcome to
196 participate, but may increase opportunities for manipulation in thin markets.
- 197 5. Agencies should explore agreements with other agencies and authorities to allocate
198 responsibilities for developing standards or policies, where appropriate, including
199 compliance enforcement and preventing market manipulation.

²⁵ Exec. Order No. 12,866, 58 Fed. Reg. 51,735 (Sept. 30, 1993). Other examples of regulatory tools drawing on economic incentives include fees, penalties, subsidies, changes in liability rules or property rights, required bonds, insurance, and warranties. OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, OMB CIRCULAR A-4 (Sept. 17, 2003).



Overseeing a Marketable Permitting Program

- 200 6. As with other types of permitting programs, when designing a marketable permitting
201 program, agencies should include mechanisms to ensure compliance with the program.
202 Agencies should monitor performance by tracking ownership of permits, tracking
203 regulated activity, and verifying that credits represent real offsets from regulated activity.
204 Depending on feasibility and efficiency, agencies should consider verifying compliance
205 directly, making use of self-verification, or engaging third parties to verify compliance.
206 Self-verification tends to be a useful option when verification procedures can be
207 standardized or when legal remedies are available to aid in enforcement. If an agency
208 chooses to use third-party credit verifiers, it should set standards to ensure that they are
209 qualified, insured, and free from conflicts of interest.
- 210 7. As with other types of permitting programs, in designing a marketable permitting
211 program, agencies should require noncompliant parties to come into compliance and
212 should include sanctions with sufficient deterrent effect to discourage noncompliance.
- 213 8. Agencies should coordinate with other appropriate agencies and authorities to identify
214 which oversight tools are appropriate to prevent fraud and manipulation.
- 215 9. Agencies should address extreme price volatility by creating broad markets, issuing
216 permits with different durations, or using circuit breakers, safety valves, or reserve pools,
217 as necessary. Agencies should also consider using reserve pools to facilitate new parties
218 entering the market.

Information Management

- 219 10. Subject to other agency priorities, agencies should collect data on the operation of
220 marketable permitting programs and consider periodically assessing both the policy
221 effectiveness and economic efficiency of existing marketable permitting programs.
222 Agencies should be cognizant that some of the data collected may be confidential.



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- 223 11. To the extent practicable, agencies should release data on permit transactions, prices,
224 holdings, compliance rates, and other data to help the public gauge a market's policy
225 effectiveness and to help parties make efficient decisions in the market.
- 226 12. Agencies that manage marketable permitting programs should coordinate with other
227 agencies and authorities that have expertise to improve marketable permitting programs.
- 228 13. In order to minimize information asymmetries, agencies should develop communication
229 policies for announcing policy changes or enforcement actions that could influence the
230 market.